Communication and Conversion in Wittgenstein's 'On Certainty'

BUCKHALTER, JAMES,MATTHEW

Abstract

This thesis argues that Wittgenstein's investigation into the concept of certainty did not begin with *On Certainty*. The origins of his analysis can be found in *Philosophical Investigations*. Although it was responding to Moore's *A Defence of Common Sense* and *Proof of the External World* that produced Wittgenstein's most sustained treatment of the topic, this thesis suggests that *On Certainty* should still be seen as a development of *Philosophical Investigations* in a particular direction, rather than a wholly separate interest in epistemology. In particular it is argued that Wittgenstein's use-based conception of linguistic meaning cannot be put to one side when considering his remarks on certainty. Whilst there has been a burgeoning interest in *On Certainty* over the past two decades, only very limited efforts have been made at charting the relationship between the two texts, especially as to whether *On Certainty* can be taken to inform our reading of *Philosophical Investigations*. Thus far the available literature has neglected the relationship between the concept of the form of life and that of the world-picture. I propose that the concepts are distinct from one another but related, and that properly differentiating them first and then considering the way they can work in conjunction strengthens our understanding of Wittgenstein's later work. This thesis seeks to make further contributions to the relationship between the two texts, examining whether concepts found in *On Certainty* such as certainties, the world-picture, and the emphasis on non-rational persuasion and conversion ought to force us to reassess the conception of language set out in *Philosophical Investigations*. In arguing that they do, the thesis aims to acquire a deeper understanding not only of *On Certainty*, refining some of these concepts and pushing them beyond their original presentation, but also of *Philosophical Investigations* and its more familiar concepts of rule-following, language-games, and the form of life. I conclude that, in light of the reading of *On Certainty* developed here, a more sophisticated conception of linguistic meaning can be developed.

Communication and Conversion in Wittgenstein's *On Certainty*

James Buckhalter

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Department of Philosophy

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Abbreviations of Wittgenstein texts

TLP	*Tractatus-Logico-Philosophicus*, trans. D.F. Pears and B.F. McGuinness, London: Routledge (2006)
BB	*The Blue and Brown Books*, New York: Harper Torchbooks (1965)
LE	*A Lecture on Ethics*, in *The Philosophical Review*, Vol. 74, No.1 (Jan 1965*b*), p3-12
LC	*Lectures and Conversations on Aesthetics, Psychology and Religious Belief*, compiled from notes taken by Yorick Smythies, Rush Rhees, and James Taylor, ed. Cyril Barrett, Oxford: Blackwell (1966)
OC	*On Certainty*, ed. G.E.M. Anscombe and G.H von Wright, trans. Denis Paul and G.E.M. Anscombe, New York: Harper Torchbooks (1972)
LFM	*Wittgenstein's Lectures on the Foundations of Mathematics, 1939*, ed. Cora Diamond, Chicago: Chicago University Press (1976)
RPPI	*Remarks on the Philosophy of Psychology, Vol. 1*, trans. G.E.M. Anscombe, eds. G. von Wright, G.E.M. Anscombe, Chicago: University of Chicago Press (1980)
CV	*Culture and Value*, trans. Peter Winch, ed. G.H. von Wright, Oxford: Blackwell (2006)
RFM	*Remarks on the Foundations of Mathematics*, trans. G.E.M. Anscombe, eds. G.H. von Wright, R. Rhees, G.E.M. Anscombe, Oxford: Blackwell (2001)
PI	*Philosophical Investigations*, trans. G.E.M. Anscombe, Oxford: Blackwell (2001) [Note that, following tradition, references to Part I will be followed by a § symbol and number of the remark; references to Part II feature only a page number.]
Z	*Zettel*, ed. G.E.M. Anscombe, Oxford: Blackwell (2004)
PG	*Philosophical Grammar*, trans. Anthony Kenny, ed. Rush Rhees, Berkeley: University of California Press (2005)
RFGB	*Remarks on Frazer's Golden Bough*, ed. Rush Rhees, trans. A.C. Miles and Rush Rhees, Herefordshire: Brynmill Press (2010)

Notes on the text

Any use of italics throughout this thesis is original to a quoted source except for book titles (e.g. *On Certainty*) and foreign words (e.g. *Weltbild*, *zugzwang*). Accordingly, no mention will be made in quotation references to describe added emphasis or italics as original rather than my own; it is always the former.

I use the § symbol to indicate sections of this thesis, but it is customary in quoting from Wittgenstein texts to use the same symbol to refer to the numbered remarks, particularly of *Philosophical Investigations* and *On Certainty*. References to Wittgenstein texts will always be preceded by an abbreviation indicating the book, (e.g. OC §613), whereas sections of this thesis will never have an abbreviation in front, and will always feature at least one decimal point to indicate subsections (e.g. §6.5.2).

Introduction

Wittgenstein (1889-1951) was working on the notes that became *On Certainty* until three days before his death, in 1951. Wittgenstein was intrigued by G.E. Moore's response to the sceptic about the external world in *Proof of the External World*. In the last year and a half of his life, during four separate periods, Wittgenstein carried out a 'sustained treatment of the topic' (OC, Preface). Taking Moore's response to the sceptic as a starting point, *On Certainty* develops into an investigation far beyond its epistemological roots, with ramifications for the conception of language and communication first detailed in *Philosophical Investigations*. Obtaining a clear view of the nature of that investigation and charting a possible course for those ramifications is the broad aim of this thesis.

Whilst *Philosophical Investigations*, like the *Tractatus-Logico-Philosophicus* before it, sparked immediate scholarly interest almost as soon as it was published, *On Certainty* has taken longer to come to widespread attention. At the moment, there is not the same wealth of secondary literature to guide or contend with, although some excellent work has been done in the past two decades. Interpretations of *On Certainty* are far from settled, and, in some areas, debates are only just taking shape.

The extent to which *On Certainty* marks off a distinct third phase of Wittgenstein's career is one such area. Much as the purported continuity of thought – or lack thereof – between the *Tractatus* and the *Investigations* has shaped discussion of those texts, the attitude one takes to *On Certainty* in this regard will have an impact on how we interpret it. I argue here for a great deal of continuity of thought between the *Investigations* and *On Certainty*. Wittgenstein may not have made this link explicit – to do so would be odd given his style of writing – but there are strong arguments available to suggest that his ideas of certainties and the *Weltbild* could not work on anything other than the conception of language and human practice to be found in *Philosophical Investigations*. I will argue that *On Certainty* refines his conception of language by filling out the backdrop of human action against which language use takes place.

Just as with the *Investigations*, pinning down what Wittgenstein wants to say in *On Certainty* is not as easy as pulling out hypotheses from the text; sensitivity to the text as a whole is essential here. The notes from which *On Certainty* was compiled were rough and unpolished. We can point out repetitions, slight shifts in terminology, explicit confusion as to how to proceed and, for instance at OC §358, dissatisfaction with his own phrasing. As a result of the unfinished nature of the text in question, no interpretation can claim definitively to be authoritative. Indeed, it is perhaps a consequence of Wittgenstein's approach – giving us exercises and scenarios to prompt us to think for ourselves – that there is no such thing as a correct interpretation.

The early chapters of the thesis will present reasonably uncontroversial claims about the core themes of *On Certainty*, drawing on the available scholarly material and interpretations, with few major refinements. The latter stages of the thesis, building on this characterization, will present something closer to an extrapolation of possible ways forward from *On Certainty*, and will, I expect, be more contentious.

Chapters 1 and 2 lay the groundwork for understanding *On Certainty*. Chapter 1 focuses on *Philosophical Investigations*, drawing out some of the questions we can pose from the *Investigations* that might find some sort of resolution in *On Certainty*. Language-games and the rule-following considerations are not the focal points of the thesis, but they will be introduced as concepts, as reference to them is needed at various stages of the investigation into *On Certainty*. We will look briefly at Kripke's sceptical challenge, the debate on which, later chapters will claim, can be repositioned in light of *On Certainty*. The form-of-life concept will also be introduced, paving the way for a more detailed discussion and comparison with the world-picture in Chapter 5.

The analysis of Chapter 1 provides an important background for Chapter 2, which will examine *On Certainty* and draw out the key themes. These will include: Wittgenstein's distinction between knowledge and certainty; certainties as ungrounded ways of acting; and the *Weltbild* (hereafter translated as 'world-picture'), which is comprised of certainties. As the examination progresses, links will be made to *Philosophical Investigations*, suggesting that *On Certainty* is not just linked to, but

a development of, Wittgenstein's work on language-games and rule-following, with an impact on how we view communication within Wittgenstein's conception of language.

Chapter 3 takes two of the keys features addressed in Chapters 1 and 2 – the form of life and the world-picture. First, the two concepts must be properly distinguished from one another. The world-picture, comprised of certainties, indicates the depth of a practice in an individual's life, the extent to which it structures other practices; the form of life suggests the breadth of practices, how widespread they are across a community. In investigating certainty, we trace the genesis of Wittgenstein's conception of it back to *Philosophical Investigations*. Chapter 3 continues by proposing an original way in which the two concepts are linked in what will be called the breadth-depth axis. This step not only acts as a preliminary move towards linking *Philosophical Investigations* and *On Certainty,* but also begins the process of redefining the backdrop against which we consider language to be communal. Crucially, it will be shown that individuals can have different certainties and world-pictures whilst sharing a form of life.

Chapter 4 expands the scope of the investigation, examining what it is it to come into contact with people with different world-pictures. The philosopher of science, Thomas Kuhn, had read Wittgenstein, and was impressed by his work, even quoting him on language-games in his seminal *The Structure of Scientific Revolutions*. Building upon existing scholarship on the parallels between Wittgenstein's world-picture and Kuhn's idea of the scientific paradigm, I expand on Wittgenstein's idea of what it is to undergo a conversion in relation to one's world-picture, and how communication can be affected by mismatched underlying ways of acting. The comparisons with Kuhn serve two primary functions. First, to deepen our understanding of *On Certainty* by drawing illuminating analogies between world-pictures and scientific paradigms; the latter provides actual examples of world-picture-like certainties structuring the actions of scientists. Secondly, it permits the introduction of the concept of incommensurability into our consideration of what it is for people with two different world-pictures to come into contact.

Chapter 5 continues by considering how incommensurability can fit into work on *On Certainty*; how communication might be hindered and conversions become possible. Examining Wittgenstein's remarks on religious belief at the beginning of Chapter 5 provides an alternative angle from the scientific one of Kuhn to consider how different world-pictures can interact. I will conclude that – aside from a few other, less influential concerns – the possibility or ease of communication between members of two world-pictures is largely proportional to the similarities to be found between those world-pictures. In doing so, I propose an interpretation of incommensurability – for its exact nature has been the topic of some dispute in recent years – that I call dynamic incommensurability.

Chapter 6 takes the detailed understanding of incommensurability into new territory, by considering how it affects more minute differences in world-pictures. This process of refining the world-picture moves deeper into the concept, beyond broad distinctions like those of religion or science, into further subdivisions within those two categories as well as differences underlying our different practices; this latter category I call the certainties of restricted domains. In proposing this way of looking at certainties, I seek to situate the position with regards to Moyal-Sharrock's influential work on *On Certainty* and the taxonomy of certainties she proposes, although I hesitate to endorse wholeheartedly the enterprise of thorough classification. Towards the end of Chapter 6, I will also consider some arguments by Coliva that run counter to the proposals made here.

Finally, Chapter 7 will reappraise the communal account of language as it was initially sketched in Chapter 1 in light of the work carried out here. In particular, the breadth-depth axis, as well as the refinement of the world-picture, leads us to be wary of taking the community from which linguistic actions derive their meaning as homogenized enough to be equated with a form of life. World-picture considerations must be included, giving us a quite different understanding of what it is to have meaning reside in the customs of a community. This, I will call the dynamic-communal account of language, as it derives largely from the dynamic interpretation of incommensurability proposed in Chapter 5. Against this revised, more nuanced backdrop of human practice, the concerns of communication and conversion benefit

from the understanding of *On Certainty* we take with us into re-examining the language-game and rule-following considerations of *Philosophical Investigations*.

Chapter 1 – Language-games, rule-following, and 'seeing connexions'

1.1 *Philosophical Investigations*

'It is just *I* who cannot found a school,' Wittgenstein once remarked, 'in any case not by those who publish articles in philosophical journals' (CV, p. 70). Part of his reasoning, in that same passage, is that he 'actually want[s] not to be imitated'. Whilst the number of articles on Wittgenstein's work in philosophical journals is added to each year, his wish not to be imitated has certainly been fulfilled.[1]

It is impossible to separate Wittgenstein's style from the substance of what he is trying to say. Nonetheless, it is the style that one first notices; it tends to win devotees and detractors almost at first glance and in equal measure. Perhaps if all those who publish philosophical papers possessed the combined talents of Wittgenstein's

[1] At least not in the world of philosophy. The novelist, David Markson, has bravely written two highly acclaimed books imitating Wittgenstein's style – and, arguably, ideas – of the *Tractatus-Logico-Philosophicus* and *Philosophical Investigations* respectively. See Markson (1988) and (2010).

analytical mind and inventiveness with a turn of phrase, such publications would be unnecessary. To Wittgenstein himself, writing in the traditional academic manner would be unthinkable. For the rest of us, in seeking to understand and explain his work, it is an unfortunate necessity.

In Wittgenstein's three major works – the *Tractatus-Logico-Philosophicus*, *Philosophical Investigations*, and *On Certainty* – there are almost no explicit references to other philosophers. The *Tractatus* notes a debt to Frege and Russell in the preface; there is a brief investigation into St. Augustine's remarks on language in the opening of the *Investigations*; and *On Certainty* begins with G.E. Moore but uses him only as a starting point.[2] Later scholars have linked Wittgenstein to Kant, Heidegger, and even Dostoevsky, amongst many others.[3] All of these links and ways of reading Wittgenstein have their merits, but Wittgenstein made no mention of any of them, except Dostoevsky, and never in his strictly philosophical – as opposed to personal – notes.

A fierce independence from outside influence marks Wittgenstein's approach. Yet, his work has been appropriated – and frequently misinterpreted – in areas as far afield as law, geography, and film studies.[4] This fact is hardly surprising given that Wittgenstein, at least after the *Tractatus*, presents a method rather than a doctrine. By 'assembling reminders' (PI §127) and 'erect[ing] signposts at all the junctions where there are wrong turnings,' Wittgenstein hopes 'to help people past the danger points' (CV, p. 25), and avoid the traps of modern philosophy, many of them hidden by the 'surface grammar' of our language (PI §664). Nowhere, though, does he trace the entire route for us.

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[2] *Philosophical Investigations* also mentions Bertrand Russell (PI §§46, 79), Frank Ramsey (PI §81), G.E. Moore (pp. 162-3), and William James (PI §§342, 413, 610, and p. 187). However, none of these references constitutes anything like a detailed examination or appraisal of these philosophers' works, and Wittgenstein is just as likely to take an interest in Beethoven (p. 156), Moses (PI §§79, 87) or Lewis Carroll (PI §13 and p. 169).

[3] For Wittgenstein's links to Kant, see, for example, Engel (1970), Schwyzer (1973), and Kitcher (2000). For an excellent discussion of Wittgenstein's thought in relation to Heidegger's, see Cooper (1997). For Wittgenstein and Dostoevsky, see, for example, McGuinness (1966).

[4] See Arulanantham (1998), Scott (1989), and Mittel (2001) respectively.

Wittgenstein's method is not born out of a will to make his own work difficult to read. The style of writing of *Philosophical Investigations*, comprised of a series of numbered remarks, switching focus and angle regularly and without warning, is 'connected with the very nature of the investigation' (PI, *Preface*). Wittgenstein's desire to avoid doctrine and theories develops out of the post-*Tractatus* understanding of language as being almost infinitely varied. The linguistic traps will not be in the same places each time we come across them, and the paths we take to reach those danger spots will vary, too. A doctrine might work perfectly in a limited set of circumstances, just as a written list of directions will be useful if one only wishes to repeat an identical journey, from the same starting point to the same finishing point.

A method, though, can guide us in all circumstances. It is more akin to a skill than an instruction. The core skill that Wittgenstein wants to impart is that of 'seeing connexions' (PI §122). This is a theme to which we shall return at various stages in this thesis, as well as later in this chapter for a fuller explanation. First, though, we must understand what it is that Wittgenstein wants us to see connections between, and why this skill is such an important one. To do that, we must understand the basics of *Philosophical Investigations*: language-games and rule-following.

1.2 Language-games

Philosophical Investigations opens with a quotation from St Augustine's *Confessions*, in which Augustine explains how he thinks he, like all other infants, came to learn language. Augustine describes how when his elders:

> named some object, and accordingly moved towards something, I saw this and I grasped that the thing was called by the sound they uttered when they meant to point it out (PI §1).

Wittgenstein describes this passage as giving us a 'particular picture of the essence of human language' (PI §1). It is a 'picture' whereby words and their meanings are inextricably linked, and the meaning is 'an object for which the word stands' (PI §1). The passage quoted from Augustine was not part of a theory of language, or a concern of philosophy at all for that matter. Augustine's *Confessions* is the autobiographical work of a religious man, and the passage describes only how he believes he learnt to talk.

So it is not a theory of language to which Wittgenstein is responding here, but a picture. Wittgenstein saw the problem with theories of language as being that they were trapped in this particular picture. The picture is, in a sense, pre-philosophical, and traditional philosophical analyses maintain it as an unrecognised assumption. Later in the *Investigations*, he talks of how 'a picture held us captive. And we could not get outside it, for it lay in our language and seemed to repeat it to us inexorably' (PI §115). Elsewhere he describes it as 'a false picture' (PI §604), the 'illusion' of language as 'the unique . . . picture of the world' (PI §96). He does not spare himself this criticism, referencing 'the author of the *Tractatus-Logico-Philosophicus*' at PI §§23, 97, and 114 as being guilty of failing to escape the picture, too. Wittgenstein's response to this picture of language has to be examined in the context of what he thought was wrong with it.

1.2.1 *The perils of the Augustinian picture*

We can isolate two criticisms of the Augustinian picture in the early stages of *Philosophical Investigations*, though their respective causes, and Wittgenstein's responses to them, are linked. The first is that the model Augustine provides for the learning and use of a language does not work in all contexts, or across all parts of language. Augustine 'does describe a system of communication', says Wittgenstein, but 'not everything that we call language is this system' (PI §3). This system is referential; words stand for things, in a one-to-one relationship. It is a symptom of what Fogelin has termed 'referentialism', noting that 'Wittgenstein points to the writings of St Augustine and to his own *Tractatus* as examples of this tendency.'[5]

Wittgenstein's objection to referentialism can be summed up by the remark that 'Augustine does not speak of there being any difference between kinds of words' (PI §1). The Augustinian picture of language learning seems to work perfectly well for words like 'chair' or 'loaf'. It fares less well when it is properties or numbers that are being taught. There is no way for a child to know that by this process of ostensive teaching, picking up an object and reciting the name, the teacher means to indicate the object and not a property or the number of that object.[6] This picture also struggles to account for conjunctions, verbs, and grammar in general where it is not a noun – and therefore something with an obvious referent – in question.

The second criticism is to do with the very conception of naming. If the meaning is the object for which the word stands, one would expect that if the object ceases to exist, so too does the meaning. Yet, we talk about Napoleon Bonaparte, Yugoslavia, and the Library of Alexandria even though none of these things exists any more.[7] Similarly, there are some things that have never existed, and yet what we say about them seems still to have meaning. We can talk about unicorns, the first female president of the USA, and Sherlock Holmes, even though none of these things has ever existed. The

[5] Fogelin (1996), p. 37.
[6] Cf. PI §28: '[A]n ostensive definition can be variously interpreted in *every* case.'
[7] Wittgenstein was by no means the first to address such problems of reference, in particular in relation to improper definite descriptions. See in particular Russell (1905) and (1919). Wittgenstein mentions this in PI §46, where he references "[b]oth Russell's 'individuals' and my 'objects' (*Tractatus-Logico-Philosophicus*)" as being "primary elements" of the sort of referential picture of language he opposes in the *Philosophical Investigations*.

cause of this confusion is that the Augustinian picture 'confound[s] the meaning of a name with the *bearer* of the name' (PI §40).

Even if this picture were confined to the representative aspects of language, it would be a bad one, but it is the broader aspects of language that interest Wittgenstein. His efforts in the *Tractatus* to capture the 'general form of a proposition' (TLP 4.5) restricted his attentions to fact-stating language, where he concluded that it is only 'the propositions of natural science' (TLP 6.53) that can be expressed meaningfully.[8] The *Investigations*, in part, challenges this view.

1.2.2 *The language-game of §2*

When Wittgenstein returned to philosophy in 1929 after a ten-year hiatus, he began to note problems with the approach of the *Tractatus*. The genesis of his doubts lay in concerns over the restriction of his view of language to blunt statements of facts where words represented 'states of affairs' (TLP 2.01) in the world. That is to say, they were confined to the Augustinian picture of language. *Philosophical Grammar*, compiled from his notes made between 1930 and 1932, poses the question: 'Do we have a *single* concept of proposition?' (PG §112)

Wittgenstein continued to develop his investigations into the variety of language throughout the 1930s and 1940s:

> The basic evil of Russell's logic, and also of mine in the Tractatus, is that what a proposition is is illustrated by a few commonplace examples, and then pre-supposed in full generality (RPP1 §38).

Wittgenstein explores this 'craving for generality' (BB, p. 16-20) in the *Investigations*, and tries to combat it. In the remark after the quotation from Augustine, Wittgenstein describes a scenario between a builder, A, and his assistant, B. They work with four types of buildings-stones: blocks, pillars, slabs, and beams.

[8] Cf. PI §65.

They have four words in their language: 'block', 'pillar', 'slab', and 'beam'.[9] A calls the words, and B brings the stone he has learnt to be bring at the call from A. This is to be conceived of as 'a complete language' (PI §2). It is 'the whole language of the tribe', and the 'children are brought up to perform *these* actions, to use *these* words as they do so, and to react in *this* way to the word of others' (PI §6).

The scenario depicted in PI §2 is the first of many language-games, a concept that forms the cornerstone of Wittgenstein's later philosophy. The language-games Wittgenstein constructs are not necessarily supposed to be realistic, but 'are rather set up as *objects of comparison* which are meant to throw light on the facts of our language by way not only of similarities, but also dissimilarities' (PI §130).

In this language game of block, pillar, slab, and beam, Wittgenstein constructs a specific scenario in which the Augustinian picture at first seems to work.

> [T]he question arises: 'Is this an appropriate description or not?' The answer is: 'Yes, it is appropriate, but only for this narrowly circumscribed region, not for the whole of what you are claiming to describe' (PI §3).

He then pushes at this understanding, questioning what happens when we look at 'an expansion of language (2)' (PI §8). David Stern characterizes Wittgenstein's approach as adding:

> other uses of signs that don't fit Augustine's description: §8 describes an expansion of the language in §2 to include numerals, demonstratives, and colour samples, and §15 adds names for particular objects.[10]

The restricted circumstance Augustine's picture does apply to is one where words are inextricably tied to the objects they represent. On the theory presented in the *Tractatus*

[9] For a detailed examination of these opening remarks of the *Philosophical Investigations*, in particular §2, see Goldfarb (1983).
[10] Stern (2004), p. 11.

– a theory guilty by Wittgenstein's own lights of succumbing to the Augustinian picture – there is a strong tie between words and the reality they purport to represent.[11] Words can picture the world by virtue of corresponding in their logical arrangement to the way objects are arranged in the world into states of affairs.

This picture encourages us to think that there is a hidden essence behind our words, and that, by analysing our words, we can somehow discover that essence. By expanding the language-game of PI §2, Wittgenstein hopes to break the allure of that corresponding relationship between words and reality. Instead of the meaning of a word being determined by the object for which that word stands, Wittgenstein declares that 'the meaning of a word is its use in the language' (PI §43).[12]

Only by recognising that there are 'countless different kinds of use of what we call "symbols", "words", "sentences"' (PI §23) can the hold of the Augustinian picture be broken. This is an aspect of Wittgenstein's approach known as anti-essentialism.[13] We can compare words with tools:

> there is a hammer, pliers, a saw, a screw-driver, a rule, a glue-pot, nails and screws.—The functions of words are as diverse as the functions of these objects (PI §11).

[11] As an illustration of this, Monk describes the occasion that gave Wittgenstein the idea of his picture-theory of language in the *Tractatus*: 'Wittgenstein read in a magazine a report of a lawsuit in Paris concerning a car accident, in which a model of the accident was presented before the court. It occurred to him that the model could represent the accident because of the correspondence between the parts of the model (the miniature houses, cars, people) and the real things (houses, cars, people). It further occurred to him that, on this analogy, one might say a *proposition* serves as a model, or *picture*, of a state of affairs, by virtue of a similar correspondence between *its* parts and the world.' Monk (1991), p. 118.

[12] Monk attributes the breaking of the hold on Wittgenstein of the picture-theory of language to an encounter with the Italian economist, Piero Sraffa. In 1929, during a conversation, Wittgenstein insisted that "a proposition and that which it describes must have the same 'logical form' (or 'grammar' depending on the version of the story). To this idea[,] Sraffa made a Neopolitan gesture of brushing his chin with his fingertips, asking: 'What is the logical form of *that*?'" Monk (1991), p. 261.

[13] To be contrasted with Wittgenstein's description of the Augustinian picture as giving us a 'particular picture of the essence of human language' (PI §1).

Further:

> this multiplicity is not something fixed, given once and for all; but new types of language, new language-games, as we may say, come into existence, and others become obsolete and get forgotten (PI §23).

Linguistic use is born of human practice. With the advent of computers and the technological age, new words are coined each year, each one with customs on use and meaning. The meanings of old words gain new meanings. 'Prestigious' originally meant 'deceptive', and only in the nineteenth century became synonymous with 'distinguished' or 'esteemed'. 'Willy-nilly', once meaning 'willing or not willing', has come to mean 'in a haphazard fashion'. Some other words become obsolete and get forgotten as practices die out.

> Here, the term "language-*game*" is meant to bring into prominence the fact that the *speaking* of language is part of an activity, or of a life-form (PI §23).

Wittgenstein calls 'the whole process of using words' in PI §2 a language-game, but will also 'sometimes speak of a primitive language as a language-game', and 'shall also call the whole, consisting of language and the actions into which it is woven, a "language-game"' (PI §7). The calling of these slices of human linguistic practice 'games' is partly to encourage us away from thinking of language as having essences lying behind it.

> Consider for example the proceedings that we call "games". I mean board-games, card-games, ball-games, Olympic games, and so on. What is common them all?—Don't say: 'There *must* be something common, or they would not be called 'games'"—but *look and see* whether there is anything common to all.—For if you look at them you will not see something that is common to *all*, but similarities, relationships, and a whole series of them at that. To repeat: don't think, but look! (PI §66)

The difficulty for our purposes here, of course, is that we cannot define a language-game. That is the entire point. For it is the practice of always seeking definitions – the craving for generality – that Wittgenstein wants to dissuade us from. As we will see, Wittgenstein makes frequent use of analogies, metaphors, and fictional scenarios to convey the concept. The point of the concept is to demonstrate the 'multiplicity of language-games' (PI §23), as Wittgenstein does when he lists the following examples of language use:

> Giving orders, and obeying them
> Describing the appearance of an object, or giving its measurements
> Constructing an object from a description (a drawing)
> Reporting an event
> Speculating about the event
> Forming and testing a hypothesis
> Presenting the results of an experiment in tables and diagrams
> Making up a story; and reading it
> Play-acting
> Singing catches
> Guessing riddles
> Making a joke; telling it
> Solving a problem in practical arithmetic
> Translating from one language into another
> Requesting, thanking, cursing, greeting, praying (PI §23)

Were we to be presented with this list, and asked what it is, we would be likely to say something like 'It is a list of activities that people do'. Each activity, we might say, has different rules and customs, different ways of going about each particular practice. Each is a more or less distinct practice, although distinctions will not always be clear-cut.

We can separate some different ways in which Wittgenstein puts the idea of language-games to use. The first way – that of primitive language-games – we have already seen, in PI §§1-3, and the language-game of the builders. Wittgenstein later references this process as 'the method of §2' (PI §48), indicating that it is a procedure he uses

again. He will often initially construct a primitive language-game that fits our philosophical preconceptions. These preconceptions are usually linked to the assumption that we can find hidden essences behind words by analysing them, as part of the Augustinian picture of language. In the immediately following remarks, he will add or subtract an aspect of the language-game. This process encourages us to question the appropriateness of the picture we started out with. Finally, he presents either a conclusion or, more often, the barest sketch of a conclusion.[14] Never is that conclusion presented in the form of a general hypothesis, only as a response to the specific example. Every case is different, because language-games do not have an essence or something that is common to all. Most frequently, the conclusion indicates that the picture we began with works only in very limited circumstances, and cannot be applied universally, thereby promoting the idea of the multiplicity of language.

Another way Wittgenstein uses the language-game concept is when he calls 'the whole, consisting of language and the actions into which it is woven, a "language-game"' (PI §7). This is the sense in which this thesis is most interested. In taking this use of language-game as the primary one, we are concerned with how linguistic use differs from community to community. One word might be used in two different communities, but with very different meanings. The different meanings cannot easily be accommodated on the Augustinian picture. However, on Wittgenstein's, where meaning is use, nothing other than use is a factor in determining meaning.

In its very simplest form, this conception addresses how a word like 'bat' can mean one thing to a table-tennis player and the community surrounding the sport, and another to a chiropterologist (one who studies mammals of the order *chiroptera*). Language-game communities are not mutually exclusive. A chiropterologist might also be a keen table-tennis player. However, in order to be understood, he has to know which game he is playing. If he is playing the table-tennis language-game – that is, he

[14] I am indebted to David G. Stern for this tri-partite description of Wittgenstein's method. See Stern (2004). Stern takes this further, and identifies three separate voices throughout *Philosophical Investigations*: a narrator, an interlocutor, and a narrative alter-ego; see Stern (2004), pp. 1-17 and in particular p. 17. Whilst Stern's approach is interesting, and yields some useful results, I consider this approach too restrictive, and in some cases inappropriate, for a text that tries to resist a traditional structure of this sort.

is with table-tennis players – and he starts talking about how he has recently seen a bat eating fruit whilst hanging from a tree, he might be met with confusion.

This confusion arises because different language-games have different rules just as all regular human activities have different rules. We follow rules all the time: driving on the correct side of the road and obeying traffic lights; playing a game of chess; smoking outside; writing from left to right on the page. The rules may be different in different communities: most of the world drives on the right; some countries still permit smoking indoors; some scripts, like Hebrew or Arabic, demand that we write from right to left, or top to bottom in as in *tategaki* Japanese.

This situation is analogous with language. One would not play with the rules of draughts when playing a game of chess. If one did, one would likely be expelled from the chess-playing community, and called either a cheat or a novice who doesn't know how to play the game. Rules are important if an activity is to make sense. Rules ensure that the same parameters govern activity each time that practice is undertaken. If chess had no rules, it could hardly be game for which people learned, practiced, and competed. If language had no rules, no one could mean anything by anything.

1.3 Rule-following

The task for Wittgenstein's understanding of rules and rule-following is to explain the relationship between rules and meaning. Wittgenstein himself, in explaining the concept, drew on several analogies and examples. By looking at some examples of activities he takes to be governed by rules in the same way as language, we can begin to get a grip on this complicated aspect of his work.

Wittgenstein takes the propositions of mathematics to be rules. This may seem obvious enough. However, it derives from his understanding of mathematics as in one sense:

> a branch of knowledge,—but still it is also an *activity* (PI, p. 193).

This move puts mathematics on a par with any other rule-governed activity, like playing chess, driving a car, or writing a limerick. When we follow a rule in mathematics, we perform an action. So, if asked to perform the sum '67+58', we know that the rule of addition entitles us to replace one set of mathematical symbols with another. We answer – or write or count out beads on an abacus – '125'. If we give a different answer, we might be given another try; perhaps we made a basic mistake. But if a pupil were to insist repeatedly that the answer is '4', we would say that he or she has failed to grasp the rule of addition. This aspect of learning or training in a rule is an important one, to be returned to shortly.

Logic of the sort used by philosophers follows rules in a similar way. The law of *modus ponens* is a rule. The rule stipulates that if two particular propositions are true – 'if *p* then *q*' and '*p*' – then we can replace them with the expression '*q*'. We need not understand this in the esoteric language of formal logic. This is a rule of inference almost everyone uses. Take two propositions, such as 'If I have a child, then I am a father', and 'I have a child'. We declare them both to be true. So we can replace the two expressions with 'I am a father'.

We could apply the *modus ponens* rule to chess. Take 'If my bishop is diagonally aligned with your king, and there is nothing blocking its path, then you are in check,' and 'My bishop is diagonally aligned with your king, and there is nothing blocking its path'. The first is true because we are playing chess. The second is true because that is the arrangement of the pieces on the board. So, I am entitled to say 'You are in check'. That's one action I could perform, a vocal one. Alternatively, if it is my turn, I could take your king and end the game. Demonstrating mastery of a rule requires an action.

Understanding how to play chess requires the mastery of the rules of the game, and '[t]o understand a language means to be master of a technique (PI §199). It makes no sense to ask the function of a rule divorced from its context, from the game in which it is played. Therefore:

> [t]he question "What is a word really?" is analogous to "What is a piece in chess?" (PI §108)

We are tempted, on the Augustinian picture, to ask what the meanings of words are, and determine them once and for all, in all contexts. This leads to confusion, for once we have determined the rule for a word in one context, we are inclined to believe that we understand it 'in full generality' (RPP1 §38). In fact, we can use words differently, just as we can use tools or any object in multiple ways. If I have lost the pieces to my draughts set, we could use the draughts board and represent the pieces with those from my chess set. Here, the piece in chess we would call the bishop is not being used as a bishop; it is instead a draughts piece.

This analogy illustrates the difference between what Wittgenstein terms 'surface grammar' and 'depth grammar' (PI §664). The surface grammar – the appearance of a chess-piece bishop – deceives us into thinking that that piece could only be used with the application of the rules of chess. Its depth grammar – which requires sensitivity to context and to the game being played – belies its actual function. That is to say, its meaning is determined by its use.

1.3.1 *Following a rule and acting in accordance with a rule*

Once we know the rules of the game we are playing, the rules determine which actions are correct (such as in mathematics) or permissible (such as in playing chess). However, we must have an understanding of what it is to obey a rule. To obey a rule, one must understand what it demands and what it requires. We must distinguish between obeying a rule and merely acting in accordance with a rule. Someone who has never played chess before and knows nothing about it might come across an unattended chessboard, which the players have left mid-way through a game with the intention of returning to it later. This passer-by might mischievously move a piece on the board, at random. As it happens, this move might be in accordance with the rules. Perhaps he or she only moves the king one space and not into a position of check, or moves a knight in its characteristic L-shaped pattern into a free square.

What distinguishes this action from knowing the rules of chess and playing a move that obeys those rules? Why is this acting in accordance with a rule, rather than obeying it? These questions are tantamount to asking in what way do rules determine and restrict our actions. Why, that is, does 67+58 always have to add up to 125? And why, from the propositions 'If I have a child, then I am a father' and 'I have a child' must I deduce the proposition that 'I am a father'? Wittgenstein addresses this problem at length in the remarks PI §§143-201.

1.3.2 *Understanding a rule*

In PI §143, Wittgenstein introduces the example of a teacher trying to teach a pupil the 'add one' rule, getting to him to understand that the series from zero to nine progresses 'zero, one, two, three, four, five, six etc.' The pupil may make any number of errors: skipping out numbers; including all the numbers but in random orders on each attempt; repeatedly putting 'four' before 'three'; and so on. The teacher tries to point out the pupil's mistakes, and eventually succeeds in getting the pupil to continue the series correctly up to nine.

How, though, can we be sure that the pupil understands the 'add one' rule when he has only demonstrated it as far as zero to nine? Must he demonstrate that he can do it correctly up to 17, to 29,374, to a million? There doesn't seem to be a point at which we can definitively say the pupil has grasped the rule, because at any point in the series the pupil might veer away from the 'add one' rule, and begin adding two instead. We are tempted to say that to understand a rule is to be able to carry it out correctly in any possible circumstance. However, the number of possible circumstances is infinite. We can only realistically demand a finite number of applications of the rule from the pupil by which he can demonstrate his understanding of the rule:

> You will perhaps say: "Of course! For the series is infinite and the bit of it that I can have developed finite." (PI §147)

Understanding a rule cannot be demonstrated by performing all of its possible applications and so we are left with the original problem of what it is to understand a rule.

In response to the same dilemma again, we might be tempted now to suggest that there is some hidden mental state or process; 'such a state is called a disposition' (PI §149). This mental state – whatever it amounts to – would have to entail the grasping of the infinite applications of the rule in an instant, without actually performing the infinite applications. When, though, are we in this state of knowing the infinite applications of a rule? Wittgenstein poses himself this question, and in doing so points out some of the ensuing difficulties with reducing understanding to a mental state.

> Always? day and night? or only when you are actually thinking of the rule? (PI §148)

> *When* do you know how to play chess? All the time? or just when you are making a move? And the *whole* of chess when you are making

> each move?—How queer that knowing how to play chess should take such a short time, and a game so much longer! (PI, p. 50)[15]

The idea of a mental state or disposition as constituting understanding is incoherent. As Robert L. Arrington notes, 'one can no more go through the infinite applications in one's mind than one can do so on paper'.[16] Wittgenstein rejects the idea of a disposition or mental state to determine whether someone understands a rule.

He now draws another analogy, between knowing simple rules of mathematics and knowing the alphabet. We say of someone that they know the alphabet in particular circumstances. It is not sufficient to have recited the alphabet all the way through just once. We do not say of someone that they know the alphabet if they have learned to spell only a few words. Someone is declared to know the alphabet by demonstrating the ability to recite it, spell various words, and file documents alphabetically, all in a variety of circumstances.[17] Therefore:

> The grammar of the word "knows" is evidently closely related to that of "can", "is able to". But also closely related to that of "understands". ("Mastery" of a technique.) (PI §150)

This applies to language in that:

> To understand a sentence means to understand a language. To understand a language means to be master of a technique (PI §199).

By casting understanding a rule as being proficient in a particular practice, Wittgenstein avoids the confusion that stems from picturing it as an inner mental state. In characterising language-games earlier, the following quotation was used:

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[15] This remark comes as a footnote at the bottom of the same page as §148. Anscombe and Rhees, in the editors' note at the beginning of *Philosophical Investigations*, mention that the 'passages printed beneath a line at the foot of some pages are written on slips which Wittgenstein had cut from other writings and inserted at these pages, without any further indication of where they were to come in' (PI, Editors' Note).
[16] Arrington (2001), p. 123.
[17] Cf. PI §149.

> Here, the term "language-*game*" is meant to bring into prominence the fact that the *speaking* of language is part of an activity, or of a life-form (PI §23).

With this conception of what it is to understand and to follow rules as being an ability, the idea of language-games being a practice or an activity is developed.

To make sense of a rule-governed practice, that practice cannot have happened only once. 'To obey a rule, to make a report, to give an order, to play a game of chess are *customs* (uses, institutions)' (PI §199). Furthermore, 'it is not possible that there should have been only one occasion on which someone obeyed a rule' (PI §199). Rules may be codified or uncodified. Either way, a formal code is not necessary to learn or understand a rule. As P.M.S. Hacker and G.P. Baker note:

> When grammarians began the task of tabulating rules of Latin grammar for foreigners who wished to learn the language, they imposed order upon linguistic usage by complex systems of classification of declensions, conjugations, moods, etc. The rules they then formulated were not rules anyone had hitherto *used* or enunciated (no Roman mother had ever corrected her child's mistakes by pointing out that *avis* belongs to the third declension and therefore has a genitive plural ending in –*ium*).[18]

Similarly, one could learn how to play chess without ever reading a list of the rules, but rather by watching others play, engaging in practice games, and having one's moves corrected. Most of us learned our native tongue without knowing anything of the grammarian-influenced rules about moods, tenses, objects, subjects, predicates, and so on. What constitutes a custom, then, is a community of able practitioners of that activity. The teacher instructing the pupil how to continue the 'add one' series of §143 has been deemed an able practitioner of this, and probably other, mathematical functions. Otherwise he wouldn't be a teacher. How has he demonstrated his own

[18] Baker and Hacker (2009), pp. 53-4.

mastery of the technique? By performing applications of the rule in a variety of circumstances.

Language, too, as another type of activity, functions in this way. Understanding a rule neither requires a demonstration of its infinite possible applications, nor is it a hidden mental process. Learning a language, like learning any activity, is a matter of learning the rules that govern it. Demonstration of one's understanding the rules of any activity, including language, demands the demonstration of applications of those rules in a variety of circumstances. Ultimately, it is for the community of able practitioners of any practice to declare a novice at that practice to have acquired that ability.

Although we will look at objections and slightly different interpretations later on, the general consensus is that this conception of rules demands that language use is a communal activity. If meaning is use, that use must be entrenched to the extent that it forms a custom. Those who have acquired the ability – that is, mastered the technique – for that custom, without needing ever to codify or make anything explicit, determine the rules for correct application of the rules that govern that custom.

In the last section of this chapter, as an introduction to Kripke's influential interpretation of the rule-following considerations, we will look at what constitutes the normativity of rule-following; what it is for a rule to require a particular action, and the reliance on the concept of a community for linguistic meaning. First, now that we have a clearer grasp of both, we turn to linking rule-following with the earlier concept of language-games, via an examination of what Wittgenstein means by 'seeing connexions'.

1.4 'Seeing connexions'

Various threads need to be drawn together. Several analogies and scenarios of Wittgenstein's have been introduced – games, chess, teaching a pupil basic mathematics – as an indirect method of explaining language-games and rules. This approach was seen as necessary by Wittgenstein to avoid proposing any sort of theory.

What has emerged from the preceding sections is an understanding of linguistic meaning as being determined by use. That use cannot occur just once, or for a lone individual, but as part of a community.[19] Different rules apply to different activities. One would not bring the rules of draughts to a chess game. The term 'language-game' is designed to show that, even within a single natural language like English, different rules pertain to different circumstances and communities. This was hinted at in a very simple form in the comparison between the chiropterologist and the table-tennis player in §1.2.

Wittgenstein never addresses how rules develop. That is a potentially interesting question, but not one that will be addressed in this thesis. Wittgenstein is only interested in what can be seen with no special investigation. On Wittgenstein's conception:

> Philosophy simply puts everything before us, and neither explains nor deduces anything.—Since everything lies open to view there is nothing to explain. For what is hidden, for example, is of no interest to us (PI §126).

[19] There is a vast amount of literature dedicated to the debate as to whether Wittgenstein's conception of language entails that there can be no such thing as a private language. Norman Malcolm (1986, 1989) has been a strong proponent of the 'community view', countered by Baker and Hacker (2009) and Colin McGinn (1984), who have argued that an individual can follow a rule. We will examine this debate in a preliminary stage at the end of this chapter in looking at Kripke. Conclusions will also be drawn on what constitutes such a community in Chapter 7 in light of the forthcoming investigation into *On Certainty*. For now, in giving a basic background, we leave this question to one side.

It is of paramount importance that philosophy ought not seek to explain phenomena, but to obtain 'a clear view of the aim and functioning of words' (PI §5).[20] A wish to clear away confusions caused by our use of language is fundamental to Wittgenstein's later philosophy. Much of the confusion we encounter is created by confusing surface grammar with depth grammar (PI §664), or using language with one, fixed set of rules, regardless of the language-game in which we are involved. Wittgenstein introduces two interrelated concepts in battling such confusions: perspicuous representation and family resemblance.

> A main source of our failure to understand is that we do not *command a clear view* of the use of our words.—Our grammar is lacking in this sort of perspicuity. A perspicuous representation produces just that understanding which consists in 'seeing connexions'. Hence the importance of finding and inventing *intermediate cases* (PI §122).[21]

Gaining a perspicuous representation of our use of words enables us to see connections in those different uses. Language-games – found and invented – provide the intermediate cases for comparison. Earlier, in challenging the idea of there being essences behind words that fixed their meanings once and for all, the following quotation was used:

> Consider for example the proceedings that we call "games". I mean board-games, card-games, ball-games, Olympic games, and so on. What is common them all?—Don't say: 'There *must* be something common, or they would not be called 'games'"—but *look and see* whether there is anything common to all.—For if you look at them you will not see something that is common to *all*, but similarities,

[20] Cf. PI §§92, 122, 125, 126.
[21] Wittgenstein's translators preferred the old-fashioned transcription of 'connexions' to 'connections'. I will use the former when quoting Wittgenstein directly, but the latter elsewhere.

> relationships, and a whole series of them at that. To repeat: don't think, but look! (PI §66)[22]

The concept of language-games is based on the way we call several different activities 'games', yet they do not have something common to all. It is now useful to bring in another paragraph made later in that same remark:

> And the result of this examination is: we see a complicated network of similarities overlapping and criss-crossing: sometimes overall similarities, sometimes similarities of detail (PI §66).

The next remark continues:

> I can think of no better expression to characterize these similarities than "family resemblances"; for the various resemblances between members of a family: build, features, colour of eyes, gait, temperament, etc., etc., overlap and criss-cross in the same way.— And I shall say: 'games' form a family (PI §67).

When we see connections in language use – similarities or dissimilarities – we do so in the same way that we might see connections between members of the same family. There is not one thing common to all, but rather a network of resemblances. A clear view or perspicuous representation is needed in order to make these connections. This process might require careful inspection, but not weighty philosophical theses and defences: 'To repeat: don't think, but look!' (PI §66).

In examining particular uses of the same word, we should look for connections between the particular uses, not for a description that purports to fix the word's

[22] Compare this with Wittgenstein's *Remarks on Frazer's Golden Bough*, where, regarding the various rites described by Frazer, he comments: 'pp. 617ff. (Chapter LXII, "The Fire Festivals of Europe") The most noticeable thing seems to me not merely the similarities but also the differences throughout all these rites. It is a wide variety of faces with common features that keep showing in one place and another. And one would like to draw lines joining the parts that various faces have in common.' (RFGB, p. 13)

meaning in all its possible applications. If you and I use a word in the same way then it has the same meaning, and we are playing the same language-game. If you and I encounter a third person using that word in a different way, it may not be as simple as declaring ourselves right and them wrong. We would have to rule out the application of the word being a simple mistake on the third person's part; perhaps a slip of the tongue, or, in learning some new words, two words' meanings have been swapped and confused. If, though, that person can point to a custom, a community that uses that word regularly as he just has, we have encountered a different language-game, with different rules for the correct use of that word.

To try and understand this new-found language-game, we would look to spot similarities and dissimilarities with our own, to see if perhaps their use of that troublesome word is in some ways connected to our use, even if not identical in all respects. Instances of this sort of confusion might range from the prosaic – the difference between 'bum' in Britain and in the USA – to the much more technical or esoteric.

1.4.1 *Perspicuous representation of language-games*

Wittgenstein is particularly interested in the esoteric language used by philosophers. He thinks that, whilst philosophers try to explain the world as it applies to everybody – ethics, religious belief, the nature of the physical world – they do so in a language peculiar to themselves. 'The language used by philosophers is already deformed,' Wittgenstein suggests, 'as though by shoes that are too tight' (CV, p. 47). It is therefore an important aspect of Wittgenstein's method of linguistic analysis to point out how words are not only used differently in different circumstances, but also to indicate how far these specialist uses are often removed from ordinary language use. According to Richter:

> It would be madness to remind people at random of the ordinary uses of randomly chosen words. Wittgenstein of course does not engage in anything so futile. Instead he targets the Freudian, the Jamesian, the

> Platonist, the Cartesian, and so on, and reminds them of the ordinary uses of words such as 'mind'.[23]

Here we can see the importance of rules to language-games, and the purpose of introducing these two concepts of perspicuous representation and family resemblance to Wittgenstein's project of clearing up philosophical confusions. Take the Cartesian and the Freudian uses of the word 'mind'. Cartesian dualism treats the mind as 'completely different from the body'; the body is 'by its very nature always divisible, while the mind is utterly indivisible.'[24] Freud divides the mind into functions: the id, the ego, and the super-ego.[25] This structure was not linked in a one-to-one relationship with neurological brain states, but Freud used them to explain and classify various mental disorders:

> Transference neuroses correspond to a conflict between the ego and the id; narcissistic neuroses, to a conflict between the ego and the super-ego; and psychoses, to one between the ego and the external world.[26]

A modern neuroscientist, by comparison, would probably do the opposite from Freud, and equate the mind with certain patterns of brain states. Everything from emotional responses to solving a jigsaw, cooking a meal to mental disorder, is dependent and directly correlated to biochemical states of affairs in the human brain.

In ordinary language, however, if I speak of 'knowing my mind', 'changing my mind', 'having a mind to teach someone a lesson', or 'paying it no mind', I do not do so with a Freudian's or a neuroscientist's conception. Neither brain states nor ids, egos and super-egos are part of what I mean when I use the word 'mind'. That is not because of any inner mental process determining what I mean when I use the word 'mind', but because I do not use the word 'mind' in that sort of way. The problem, particularly for philosophy, is that:

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[23] Richter (2004), p. 7.
[24] Descartes (2006), p. 59 [Sixth Meditation; 86 and 85].
[25] See Wollheim (1991), p. 175.
[26] Quoted in Wollheim (1981), p. 236.

> When philosophers use a word—"knowledge", "being", "object", "I", "proposition", "name"—and try to grasp the *essence* of the thing, one must always ask oneself: is the word ever actually used in this way in the language which is its original home?—
>
> What *we* do is to bring words back from their metaphysical to their everyday use (PI §116).

Of course, one would be entitled to point out that my proposed uses of mind are inconsistent. 'Paying it no mind' suggests that we grant a matter no attention, whereas 'changing one's mind' is suggestive of making a decision and then altering that decision. How, then, can talking about the everyday use of language help us fend off, for example, the Freudian and the neuroscientist, if everyday use is so inconsistent?

In fact it is part of the point of Wittgenstein's approach that even in our everyday language, we do not use the same words in consistently identical ways. The surface grammar, that is, the identical word 'mind' appearing in all the examples, conceals the depth grammar, which is the different ways in which the word 'mind' is used in those examples.[27] Traditionally, philosophers have failed to pay attention to these differences, which has led them into confusion. Part of the difficulty is that the:

> aspects of things that are most important for us are hidden because of their simplicity and familiarity. (One is unable to notice something—because it is always before one's eyes.) (PI §129)

The method of seeking a perspicuous representation is what Wittgenstein hopes will help to jolt us out of our familiarity. This point also suggests a deeper function for language-games. By frequently presenting in his language-game examples a scenario that at first seems familiar to us, and then adding or subtracting small parts of the language-game, Wittgenstein hopes that we can see things afresh. Sometimes we are

[27] See Cottingham (1998), p. 112. Cottingham does, on the other hand, make the excellent point that words like "'repression', 'rationalization', 'sublimation' – are now pretty much taken for granted in our everyday modes of self-understanding," and have become absorbed into our ordinary language (*Ibid*).

encouraged to see similarities with other uses and sometimes to see dissimilarities. Either way ‘seeing connexions’ is the process by which we can proceed to clear up some of the philosophical confusions arising from a failure to pay proper attention to our grammar.

1.5 Kripke

In PI §§185-201, Wittgenstein investigates some further aspects of rule-following, specifically the normativity of rules – how we know what it is that a rule requires us to do – and whether interpretation of a rule is necessary at the point of every possible application. These passages, along with the broader section PI §§134-242, lead Kripke in *Wittgenstein on Rules and Private Language* to claim that there exists a sceptical challenge to meaning in *Philosophical Investigations*, which he tries to combat by means of his own sceptical solution.

Kripke's account depends on a community view of language, whereby we are warranted to claim that words mean what they do by virtue of the role such practices have in our form of life. The latter term, form of life, is not one we have encountered yet, but it will be addressed in detail later in detail in Chapter 3. The following, closing section of this chapter outlines Wittgenstein's remarks on some issues for rule-following as well as Kripke's account. These matters will then largely be put to one side until Chapter 7, to make way for a detailed investigation into *On Certainty*.

1.5.1 *The normativity of rules*

At PI §185, Wittgenstein suggests that we 'return to our example (143)', where we first encountered the scenario of the pupil learning to continue a series. The pupil has 'mastered the series of natural numbers', and is now being taught 'other series of cardinal numbers' (PI §185). The aim is to get him to the stage where he can write down series of the form

> 0, n, 2n, 3n, etc. at an order of the form "+n"; so at the order he writes down the series of natural numbers (PI §185).

Now he is instructed to continue a series of 'add two'. He has performed this series of computations satisfactorily up to 1000. The pupil is then asked to continue the series

beyond 1000, and something strange happens. Instead of continuing '1000, 1002, 1004 . . .', as we would expect, he writes '1000, 1004, 1008 . . .' When questioned, the pupil is adamant that he is following the same rule as he was when continuing the series up to 1000. Further investigation might discover that the pupil's understanding of the order amounts to '"Add 2 up to 1000, 4 up to 2000, 6 up to 3000 and so on"' (PI §185).

It would seem that we can rectify this easily, and insist that the pupil follows the same rule whatever the circumstances. The problem here is that the pupil thinks that he is following the same rule. We return to a difficulty similar to the one we encountered earlier. In order to demonstrate that he has grasped the rule in its infinite applications, must he perform an infinite number of computations? For, if he does not – and obviously he can't – it is impossible to tell whether at some point his understanding of the rule diverges from that of the teacher's. The pupil interpreted the 'add two' rule to entail adding two up to 1000, four up to 2000, six up to 3000.

The pupil and the teacher are following different rules. However their respective uses of the term 'add two' are identical, overlapping precisely, up until the series reaches 1000, at which point the rules' functions diverge. Even were we to test the pupil up to a million, how can we be sure something like this won't happen to his interpretation later in the series?

1.5.2 *Interpreting a rule*

Wittgenstein suggests it would appear that 'a new insight—intuition—is needed at every step to carry out the '+n' correctly' (PI §186). The pupil needs to know the right step to take at any particular stage in the possible applications of the series. The right step, the teacher might want to say, is 'the one that accords with the order—as it was *meant*' (PI §186). However, we have already ruled out two ways in which the teacher can have meant the order in all its possible applications. The teacher could not have meant it by running through all the possible applications in his mind, and he could not have meant it in the sense that there is some hidden mental state via which he has instantaneous access to all those possible applications. Wittgenstein is left wondering:

> how can a rule shew me what I have to do at *this* point? Whatever I do, is, on some interpretation, in accord with the rule (PI §198).

Whilst the example Wittgenstein has used is mathematical, this is only for the clarity of the issue this approach provides. If we take this in its more general form, given that rules are a necessary feature for meaning in any linguistic practice, this can apply to words, too. Some sort of 'superlative fact' (PI §192) would solve the problem, something to which we can turn in order to justify, once and for all, my claim that I mean the same thing I always have in my application of the rule.

If 'whatever I do [can] be brought into accord with the rule' (PI §198), the entire notion of following a rule correctly and consistently loses its sense. If a rule can be correctly but inconsistently supplied, it cannot provide a normative constraint on our actions. It is as if a pupil of chess learned that kings can only move one space in any direction, provided it is not into a position of check. That is the rule. At some point in the game, the pupil moves the king two spaces. When asked why he has ignored the rule on the movement of the king, the pupil would insist he is following the same rule as always.

By careful probing, it turns out he has taken the rule to mean 'kings can only move one space, unless the only other pieces left on the board are pawns and the other king, in which case the king can move two spaces'. This would be a fairly rare occurrence in a game of chess, so it might have taken several, possibly hundreds, of games, for this peculiar event to happen. Up until this point, it has seemed to the teacher that the pupil understands fully the rules of chess, and in particular the rule about movement of the king.

The pupil, too, is confident in his claim always to have understood what the rule requires of him, and that he has always followed the same rule. In declaring that he understood what the rule requires of him back when he was learning the game, there is no way the teacher could have ensured that this peculiarity would never happen. Neither the teacher nor the pupil could insist upon testing in all the possible

circumstances in which a king might be moved, and there cannot be a hidden mental state to which either can point.

Like Wittgenstein's example of the 'add two' rule, the chess pupil's understanding of the rule and the teacher's understanding of the rule demand identical applications up until the specific set of circumstances described – there being only two kings and some pawns left on the board – at which point the functions of the rules diverge. We are left with a paradox about rule-following, which Wittgenstein describes in §201. Although Wittgenstein rejects the paradox later in §201, Kripke takes the early stages of Wittgenstein's remark to propose his sceptical challenge for meaning. This position is known as meaning scepticism.

1.5.3 *On Rules and Private Language*

Kripke's *On Rules and Private Language* has become a perennial feature of scholarship on Wittgenstein's ideas on language and rule-following. It is divided into two parts. In the first part, Kripke's reading casts Wittgenstein as presenting a sceptical position about rule-following and therefore about meaning; this is the so-called sceptical paradox. The second part contains Kripke's proposed sceptical solution, and also a discussion of the private-language argument. The sceptical paradox asserts that out of the rule-following considerations of *Philosophical Investigations* – roughly PI §§134-242 – comes the paradox that there can be no such thing as having justification to say that we mean anything at all by a particular expression. We lack what Wittgenstein called the 'superlative fact' to which we can point in providing such a justification.

Proposed solutions to the paradox vary, but they can usually be divided into straight and sceptical solutions. Straight solutions suggest that just such a fact or mental state is available. The dispositionalist account debated by Horwich (1995, 1998), Miller (2000), and Vignolo (2008) is an example, although Kripke himself considers it

'misdirected'.[28] Sceptical solutions accept the paradox, but suggest that talk about meaning is still possible. Kripke characterizes Wittgenstein as offering a sceptical solution.

First, though, Kripke rules out straight solutions by a process of elimination. Kripke rightly interprets Wittgenstein as rejecting meaning-Platonism, whereby the correct application of the rule is determined by something mind-independent and metaphysical. This would be the idea that 'the beginning of a series is a visible section of rails invisibly laid to infinity' (PI §218).[29] Kripke then, according to Boghossian, examines 'facts about how the speaker has actually used the expression, facts about how he is disposed to use it, and facts about his qualitative mental history'.[30] Kripke finds them all insufficient to fix meaning.

There has been some debate as to whether Kripke is mounting an epistemological or a constitutive sceptical attack on meaning; some have even suggested that he attempts both separately.[31] An epistemological paradox would be concerned with an individual's ability to know, and to justify, whether or not she is engaging in a consistent practice of meaning ascription. If Kripke is mounting a constitutive sceptical attack, on the other hand, it would concern the very possibility of meaning, regardless of our knowledge or awareness of it. Whilst this is an area that has led to some debate, I side with Boghossian's view that the answer is relatively straightforward.

The fact that Kripke's interlocutor is 'permitted complete and omniscient access to all the facts about his previous behavioural, mental, and physical history' renders this debate obsolete.[32] For if the interlocutor is granted such omniscient knowledge, of both internal and external phenomena, then any paradox cannot possibly be concerned

[28] Kripke (1982), p. 23. See also McDowell (1984). McDowell presents Wittgenstein as proposing a straight solution to his own paradox.
[29] See §§212-225, and in particular §§218-225. It is uncontroversial to claim that Wittgenstein rejected meaning-Platonism, and so I go into no more detail here, but for further discussion see Wright (2001*a*), particularly pp. 314-315 and Wright (2001*b*), particularly pp. 140-2.
[30] Boghossian (1989), p. 508.
[31] See McGinn, C. (1984), p. 149.
[32] Boghossian (1989), p. 515.

with finding something that may pertain, but may not be knowable to the individual in question. It has to be concerned with the possibility of meaning itself, regardless of any epistemic question. That is not to say that there is no epistemic question of whether one can know whether one is successfully engaging in consistent meaning ascription; only that, within the framework of Kripke's exposition, it is not a matter for debate.

The sceptical solution, as its name suggests, seeks to resolve the obvious difficulty of being unable to ascribe semantic content to our use of language, whilst retaining the sense of the paradox. Kripke himself sees the sceptical paradox as 'insane and intolerable'.[33] The goal of the sceptical solution, then, as Boghossian notes, is to acknowledge the sceptical paradox whilst 'showing that what it asserts does not ultimately lapse into pragmatic incoherence'.[34] The method Kripke uses is to replace the familiar truth-conditions for what constitutes a meaningful sentence with assertability conditions. He goes on to describe these assertability conditions, arguing that a positive assertability condition (similar to the 'T' in a truth table of truth-conditions) must refer to the practice and disposition of a community of speakers. It is in this section that Kripke's argument against private language is also developed, and the resulting position Kripke takes up is that any linguistic practice considered wholly in isolation from any sort of community is thereby devoid of meaningful semantic content. Therein lies his argument against the possibility of private language, and his argument for a communal view of language and meaning.

1.5.4 *Kripke's sceptical paradox*

Kripke opens his argument by quoting from PI §201:

> This was our paradox: no course of action could be determined by a rule, because any course of action can be made out to accord with the rule. The answer was: if any action can be made out to accord

[33] Kripke (1982), p. 60.
[34] Boghossian (1989), p. 518.

> with the rule, then it can also be made out to conflict with it. And so there would be neither accord nor conflict here.[35]

Kripke illustrates the paradox and develops it with another mathematical example, in an exchange between himself and a sceptic about meaning. Kripke, a competent practitioner of addition and familiar with the term 'plus' or '+' has never performed the computation '68+57'. On performing it, he obtains the answer '125'.

Then, 'a bizarre sceptic . . . questions [his] answer'.[36] Does Kripke, on the basis of how he has used the plus function in the past, not take the computation of '68+57' to be '5'? Perhaps in Kripke's applications of the 'plus' function in the past he really meant a function called 'quus', which is defined by:

$$x \text{ quus } y = x+y, \text{ if } x < 57$$
$$= 5 \quad \text{otherwise}[37]$$

The sceptic's claim is that it is Kripke who is currently suffering a delusion, 'under the influence of some insane frenzy, or a bout of LSD.'[38] Kripke has always meant the 'quus' function when he has used the term 'plus', and has acted accordingly. All that is happening now is that he is misinterpreting his own previous usage.

Kripke admits that if the sceptic makes this claim sincerely, then he is crazy. The example really serves to pose two questions from the sceptic. Considering that this particular computation has never been performed before by Kripke:

> [f]irst, [the sceptic] questions whether there is there any *fact* that I meant plus, not quus, that will answer his sceptical challenge. Second, he questions whether I have reason to be so confident that now I should answer '125' rather than '5'.[39]

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[35] Kripke (1982), p. 7. The quotation is taken from the first half of PI, §201.
[36] Kripke (1982), p. 8.
[37] Kripke (1982), p. 9. Wittgenstein draws a similar example about unexpectedly going wrong with a simple mathematical computation at RFM, I-135, p. 90.
[38] Kripke (1982), p. 9.
[39] Kripke (1982), p. 11.

The two questions present a demand for justification, either, in the first instance, by an external fact, or, in the second, by something internal, perhaps a mental state. As we have seen, neither approach is feasible. If nothing determines that Kripke has always performed simple addition when faced with the plus symbol, then the very notion of following a rule is cast into doubt. 'It seems,' says Kripke, 'that the entire idea of meaning vanishes into thin air', and he rejects the possibility of a straight solution.[40]

1.5.5 *Kripke's sceptical solution*

A sceptical solution must accept the paradox, whilst maintaining that our ordinary linguistic practice need not be troubled by our inability to provide a justification for our meaning claims. The model for Kripke's sceptical solution is the replacement of truth conditions with assertability conditions.[41] He poses himself the question:

> [G]ranted that our language game permits a certain 'move' (assertion) under certain specifiable conditions, what is the role in our lives of such permission?[42]

And answers:

> All that is needed to legitimize assertions that someone means something is that there be roughly specifiable circumstances under which they are legitimately assertable, and that the game of asserting them under such conditions has a role in our lives. No supposition that 'facts correspond' to those assertions is needed.[43]

Drawing on PI, §219, Kripke then asserts that:

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[40] Kripke (1982), p. 22.
[41] Kripke (1982), p. 74.
[42] Kripke (1982), p. 75.
[43] Kripke (1982), p. 79.

> Ultimately we reach a level where we act without any reason in terms of which we can justify our action. We act unhesitatingly but *blindly*.'[44]

Kripke further cites *Philosophical Investigations* to justify his claim that just because we cannot provide the sort of justification the sceptic demands – the type a straight solution purports to provide – does not indicate that we have cause to doubt our ascriptions of meaning.

> To use a word without justification [*Rechtfurtigung*] does not mean to use it without right [*Unrecht*] (PI §289).

In other words, justification on this level is unnecessary for meaningful language. The sceptic is right to point out that our language use rests on nothing concrete, but not that we need to adopt a sceptical attitude to meaning claims as a consequence. It is, says Kripke:

> part of our language game of speaking of rules that a speaker may, without ultimately giving any justification, follow his own confident inclination that this way (say, responding '125') is the *right* way to respond, rather than another way (e.g. responding '5'). That is, the 'assertability conditions' that license an individual to say that, on a given occasion, he ought to follow his rule this way rather than that, are, ultimately, that he does what he is inclined to do.[45]

However, such an individual cannot have such a license in the absence of a broader community. Both Kripke's community view of meaning and his arguments against private language depend on this point. Quoting Wittgenstein, he points out that:

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[44] Kripke (1982), p. 87. There is an interesting debate on what Wittgenstein means by acting 'blindly' in this context; see Stern (2004), pp. 154-156, and Fogelin (1994), pp. 219-220. This concern will be explored a little further in §6.5.2 in relation to Wittgenstein's *Remarks on Frazer's Golden Bough*, where he distinguishes between acting on a pre-rational basis and on opinions. Cf. Clack (1999, 2003).
[45] Kripke (1982), pp. 87-8.

> To think one is obeying a rule is not to obey a rule. Hence it is not possible to obey a rule 'privately'; otherwise thinking one was obeying a rule would be the same thing as obeying it (PI §202).[46]

The assertability conditions that license an individual to make meaning claims are acquired through being deemed a competent practitioner of the activity in question by the community of competent practitioners. In Wittgenstein's original example, and in Kripke's, that practice is addition, and the community of competent practitioners made up of mathematics teachers and other numerate adults. For language, broadly speaking, it will be those who speak the language and regularly make themselves understood and understand others in that language.

1.5.6 *The community view and the form of life*

Until Kripke's work, it was widely assumed that Wittgenstein upheld a community view of language roughly along the lines described by Kripke in his sceptical solution. Criticisms of Kripke are often not so much that his sceptical solution is a wildly inaccurate portrayal of Wittgenstein, but rather that he overstates the problem and the significance of the paradox.

There are those who maintain that a lone individual – isolated not just by chance, but logically – would be capable of following a rule, among them Fogelin, McGinn, and Blackburn.[47] Whilst this is a stimulating debate, it deals with peculiar exceptions. None of these 'Individualists', as Stern calls them – as opposed to 'communitarians' – suggests that the majority of our language use and concomitant rule-following is anything other than a communal activity.[48] For the:

> word "agreement" and the word "rule" are *related* to one another, they are cousins. If I teach anyone the use of the one word, he learns the use of the other with it' (PI §224).

[46] Kripke (1982), p. 89.
[47] See Fogelin (1984), McGinn, C (1984), and Blackburn (1984).
[48] Stern (2004), p. 155.

Kripke declares that this sort of agreement, 'the set of responses in which we agree, and the way they interweave with our activities, is our *form of life'*.[49] On the other hand, 'beings who agreed in consistently giving bizarre quus-like responses would share in another form of life'.[50] Instead of justification, Kripke proposes that we point to our form of life – the practices of our community – and indicate that 'this is simply what I do' (PI §217).

The enigmatic term 'form of life', or variations thereof, makes five appearances in *Philosophical Investigations*; three times in Part I, and twice in Part II. It is described as 'complicated' and that which 'has to be accepted' (PI, pp. 148 and 192). When humans agree as to what is true or false, that is 'not agreement in opinions but in form of life' (PI §241). Any sort of linguistic practice in which humans engage, any language-game, is 'part of . . . a life-form' (PI §23).[51] Even to 'imagine a language means to imagine a life-form' (PI §19). Where there is a language-game, real or fictional, there must be a form of life in which it takes place.

Although these are the only explicit references, the form-of-life concept is invoked elsewhere in *Philosophical Investigations*. The implication of the remark 'If a lion could talk, we could not understand him' (PI, p. 190) is that understanding is impossible when our form of life is radically different from those with whom we are trying to communicate. The rule-following considerations – identified by Boghossian as roughly §§138-242[52] – draw attention to the importance of a community with a way of life in which certain, for example, mathematical, procedures take place: '. . . a person goes by a sign-post only in so far as there exists a regular use of sign-posts, a custom' (PI §198). Such customs cannot occur in a void: 'hence it is not possible to obey a rule "privately"' (PI §202).

[49] Kripke (1982), p. 96.
[50] Kripke (1982), p. 96.
[51] I see no reason to draw a distinction between 'life-form' and 'form of life'. It seems to be an anomaly of the translation that the original German term, '*Lebensform*', is here and at PI §19 translated as 'life-form' but throughout the rest of the text as 'form of life'.
[52] Boghossian (1989) p. 329.

In asking what justification might be available for one's following a rule the way one does, Wittgenstein is 'inclined to say: "This is simply what I do"' (PI §217). He has 'reached bedrock, and [his] spade is turned' (PI §217). When digging deeper than the language-game falters, Wittgenstein is inclined to invoke the form of life, just as Kripke does in his sceptical solution. Instead of 'This is simply what I do,' he might just as easily say: 'This is simply my form of life.'[53] For what humans do 'blindly' and without ratiocination is what comprises a form of life; a certain class of actions that make up the respective forms of life for different communities (PI §219).

Reading *Philosophical Investigations*, it becomes clear that the form-of-life concept mutually supports the idea of a language-game. Rush Rhees summarised this neatly in saying 'rules of grammar are rules of the lives in which there is language.'[54] Without a form of life, a language-game cannot exist, and utterances and written words are mere squeaks and squiggles. The meaning of a word depends upon its role in a language-game, and language-games, with all their internally interconnected rules and actions, only make sense when 'surrounded by certain normal manifestations of life' (Z §534). Yet, for something so obviously fundamental to Wittgenstein's rich understanding of language, the form-of-life concept is left curiously undefined. It functions as a somewhat ungainly recurring metaphor, restated in various guises, to indicate that philosophical enquiry can go no further and no justifications can be provided for our actions. More renderings of the metaphor are to be found outside of *Philosophical Investigations* – for example that last quotation from *Zettel* – but there is nothing that directly states, in plain terms, just what a form of life amounts to.

Metaphors have their uses in philosophy, and Wittgenstein's are often particularly inventive and illuminating.[55] However, many philosophers, particularly those not inclined towards a Wittgensteinian approach, find fault with his resorting to terminology that is so underdeveloped. When pressed, it is difficult to supply anything other than a restatement of the material to be found in *Philosophical Investigations*: metaphors, loose suggestions, and a general inability to parse out the

[53] Cf. OC §204.
[54] Rhees (1970), p. 45.
[55] See for example the 'riverbed' of OC §97 and §99, the 'visible section of [metaphysical] rails laid to infinity' of PI §218, and the investigations into metonymy and metaphor throughout RFGB.

term at all succinctly. If we are to understand what a form of life is, beyond merely restating the metaphor in increasingly esoteric terms, a fresh approach is required. By developing an understanding of *On Certainty*, the concept of the form of life and its role in a communal conception of linguistic meaning can itself be better understood. Only then, and with an understanding of the world-picture concept of *On Certainty*, can we reappraise the communal conception of language.

Conclusions

This chapter has provided a background against which *On Certainty* can be understood. *Philosophical Investigations* as a whole – and the concepts of language-games, family resemblance, and rule-following in particular – presents some of Wittgenstein's best-known ideas. Our examination of *On Certainty*, beginning in the next chapter, would make little sense without an understanding of these ideas and of Wittgenstein's method.

Language-games and rule-following go hand in hand. Language-games are concerned with meaning, and how it can change depending on how use differs in different contexts. Rules are necessary to fix meaning within a language-game, as they indicate a custom. Without a custom, there are no rules, and with no rules, there is no meaning.

Seeing connections is our method for gaining a clear view of our linguistic practice. In order to acquire a perspicuous representation and see these connections, we need to find or invent intermediate cases in the form of language-games. In the first instance, this process leads us to question the Augustinian picture described at the beginning of Chapter 1. In resisting the temptation to seek one thing common to all uses of a word, but rather a network of family resemblances, we take the first step to clearing away philosophical confusions that have been caused by the obscuring role of surface grammar.

The examination of Kripke's interpretation of Wittgenstein – though interesting in its own right – primarily serves to draw attention to an area of weakness in the communitarian explanation of linguistic meaning. Without a clear understanding of what such a linguistic community amounts to – where a community's boundaries might lie, and what happens when different communities come into contact or conflict with each other – the idea of a form of life is underdeveloped. Whilst *On Certainty* addresses a number of philosophical topics, I will argue in the forthcoming chapters that a useful – and hitherto largely unexplored – way of reading the text is that of developing the form-of-life concept in conjunction with the world-picture concept

from *On Certainty* in order to bolster Wittgenstein's conception of linguistic meaning. Seeing connections will be an essential aspect of that investigation.

Chapter 2 – The *Weltbild*

2.1 *On Certainty*

The starting point of *On Certainty* is relatively uncontroversial in its interpretations. Wittgenstein, responding to G.E. Moore, makes a distinction between instances of knowledge and those of certainty. From there, interpretations, or at least emphases, splinter and multiply.

In style, *On Certainty* bears a resemblance to *Philosophical Investigations*. Both open with a reference to another scholar – in *On Certainty* G.E. Moore, in *Philosophical Investigations* Augustine – and there then follows a series of numbered remarks. These remarks are not always clearly linked to one another. Topics and concerns come into and out of focus without a clear, linear argumentative structure. Both texts display Wittgenstein working through ideas in real time, posing himself questions, and rarely, if ever, providing clear-cut solutions.

Yet, Stroll's declaration, and Moyal-Sharrock's endorsement of it, that *On Certainty* is 'the hardest . . . to get a handle on' of Wittgenstein's mature works is overly pessimistic.[56] It need only be so troublesome if the reader is desperate to draw out traditional philosophical theses. It is true that, if taken as a text on its own, it has the potential to be baffling. However, if the reader, particularly one reasonably familiar with *Philosophical Investigations*, is willing to acquiesce to the style of Wittgenstein's thought, not only can the nature of the certainties in question be broadly agreed upon, but the possibilities for further investigation can be found liberating, rather than an impediment.

I noted in my introduction that, building on a basic consensus, I consider what follows in this thesis to be an extrapolation of *On Certainty*. I also think that the same could be said for almost all purported interpretations of the text. If seeing connections was a core skill we hoped to achieve from *Philosophical Investigations*, then seeing connections in relations to questions of certainty and knowledge is what is undertaken in *On Certainty*. It is Wittgenstein bringing his own method to bear on a particular topic that concerned him in the final years of his life.

There is a peculiar degree of cognitive dissonance in many areas of Wittgenstein scholarship. On the one hand, it is frequently asserted, quite correctly, that Wittgenstein did not want to propose philosophical theories.[57] On the other, his work is sometimes treated as though there really are theses to be drawn out but Wittgenstein just objected to stating them explicitly. Consequently, Mounce takes Wittgenstein in *On Certainty* to be advocating a form of classical realism, whilst Brenner proposes an interpretation along the lines of a Kantian transcendental idealism.[58] David Bloor identifies something like a theory advocating social conservatism.[59] James C. Edwards sees scope for bolstering a reformed version of religious ethical dogmatism.[60]

[56] Stroll (2002), p. 446, and Moyal-Sharrock (2007), p. 1.
[57] See, for example, Hutto (2006), pp. 3, 120, and 126, Hacker (2001), pp. 336-338, and Cavell (1996), p. 280.
[58] See Mounce (2007) and Brenner (2007).
[59] See Bloor (1983).
[60] See Edwards (1985).

Some of these readings, of which the above are merely a few examples, have more to commend them that others. That is somewhat beside the point. The real issue is that there is simply not the material in *On Certainty* to decide all that much conclusively. We can only imagine the response one might receive if one had the opportunity to ask Wittgenstein if he really was a realist, a transcendental idealist, a social conservative, or a religious-ethical dogmatist. We must assume that Wittgenstein took his own thoughts and warnings about theorising in *Philosophical Investigations* seriously. We have no reason to think otherwise. *On Certainty* might therefore best be seen as alerting us to the 'danger points' (CV, p. 25) and 'assembling reminders' (PI §127) when it comes to the way we think about certainty and knowledge, rather than the muddled presentation of a straightforward epistemological – or indeed any other – position.

The opening of *On Certainty* addresses just such a danger point, in response to G.E. Moore. Moore's two papers, *In Defence of Common Sense*, written in 1925, and *Proof of an External World*, written 1939, are identified by the editors of *On Certainty* as the subject matter of *On Certainty* §1.[61] Although the papers are separate, their concerns are related. In *In Defence of Common Sense*, Moore lists a set of commonsensical propositions – so obvious that he calls them truisms – which he claims that he, and many others, knows. In the *Proof of an External World*, Moore seeks to rebut the sceptic about the external world by claiming that he knows that he has a hand (and another hand), and he is surer of these claims than any proposition the external-world sceptic could put forward.

Wittgenstein thinks that, in the sense used by Moore, in neither case are these claims of knowledge; they are instances of certainty. Certainties are differentiated from knowledge on the basis of the role they play in our lives. In order to see this, we do not need complex philosophical theories. We need only look at the way these supposed instances of knowledge are used.[62] Although we might, as Moore did, say of ourselves that we know such things, taking such a claim at face value would be to be

[61] Moore (1959a) and (1959b). For editors' comments, see (OC, Preface).
[62] Cf. PI §66.

deceived by the surface grammar.[63] Wittgenstein does not doubt Moore's truisms, only Moore's claim that he knows them. *On Certainty* then develops our understanding of what these truisms amount to. Although certainties resemble them, unlike ordinary empirical propositions, which we could claim to know, certainties are not 'subject to testing' but rather make up the 'substratum of all my enquiring and asserting' (OC §162).

The network of certainties makes up a world-picture.[64] One's world-picture is not itself a hypothesis, 'because it is the matter-of-course foundation for [any] research' (OC §167). The question 'Is [our world-picture] true or false' (OC §162) is a meaningless one. Each certainty acts like a 'hinge' (OC §§341, 343, 665). If we want to investigate anything, it must stay put, immune from doubt or testing: 'If I want the door to turn, the hinges must stay put' (OC §343). Whereas Moore uses the truisms to reject the external-world sceptic in an apparently straightforward way, Wittgenstein's interpretation of the truisms leads him to a different position: that we cannot seriously entertain the concerns of the sceptic. The existence of the external world is a certainty for almost any empirical enquiry in which we might wish to engage. If we doubt the existence of the external world, then here a 'doubt would seem to drag everything with it and plunge it into chaos' (OC §613).

These are some of the uncontroversial aspects of *On Certainty*, agreed upon by almost all scholars. Later, we will address further issues regarding the world-picture, including what happens when two different world-pictures come into contact or conflict, how communication is affected in such cases, and whether we can learn anything about how to tackle the sceptic about meaning in light of Wittgenstein's examination of Moore's response to the external-world sceptic. This chapter will go so far only as to explain the background to *On Certainty* in the form of Moore's two papers and then seek a clear understanding of the basic elements of certainties and the world-picture. First, we turn to a brief exposition of Moore's papers, in order to

[63] Cf. The difference between the concept of 'knowing and the concept of "being certain" isn't of any great importance at all, except where "I know" is meant to mean: I *can't* be wrong. In a law-court, for example, "I am certain" could replace "I know" in every piece of testimony' (OC §8)
[64] Cf. OC §§95, 162, 167.

understand the background of scepticism and what it is that Wittgenstein is initially responding to in *On Certainty*.

2.2 Moore

2.2.1 *A Defence of Common Sense*

Somerville points out that in *A Defence of Common Sense* "Moore nowhere defines the term 'common sense,' nor expressly says what a common-sense belief is, though he gives examples of them."[65] This is quite correct. However we can nonetheless draw out some key features by examining the examples and then comparing them with the approach taken in *Proof of an External World*.

Moore's conception of a common-sense view is built around two things. First, that there are things that we know and some of these comprise our common-sense view. Second, Moore's account is propositional. This means that these things that we know are expressed in propositions, which, we might ordinarily presume, are open to the ascription of truth functions like any other empirical proposition.

Moore begins *A Defence of Common Sense* by listing a set of propositions. Moore lists these, and makes three assertions about them: he knows these propositions to be true; many – Moore shies away from saying all – other people know them to be true; he knows that other people know them to be true, and other people know the same of him. Moore then concedes that some philosophers, namely sceptics, have doubted these truisms, or at least our ability to know them. It is this sort of peculiar, philosophical scepticism that he sets at odds with what we would ordinarily claim we know for sure.

This initial set of propositions will later be referred to as the Moorean propositions, and some selections are worth quoting here as Wittgenstein makes occasional oblique references to them in *On Certainty*:

> There exists at present a living human body, which is *my* body. This body was born at a certain time in the past, and has existed continuously ever since, though not without undergoing changes; it

[65] Somerville (1986), p. 235.

> was, for instance, much smaller when it was born, and for some time afterwards, than it is now. Ever since it was born, it has been either in contact with or not far from the surface of the earth[66]; and, at every moment since it was born, there have also existed many other things, having shape and size in three dimensions . . . from which it has been at various distances . . .
>
> . . . [T]here have, at every moment . . . been large numbers of other living human bodies, each of which has . . . (a) at some time been born, (b) continued to exist from some time after birth, (c) been, at every moment of its life after birth, either in contact with or not far from the surface of the earth; and many of these bodies have already died and ceased to exist. But the earth had existed also for many years before my body was born . . .[67]

There is significant scope to these propositions. Although in expressing the propositions Moore relates them all to his own body, they also cover other humans, objects of all sorts existing in three dimensions, and the age of the Earth. These are all things Moore claims to know and so they are all formulated as empirical propositions. That is to say, as Moyal-Sharrock puts it, they refer to 'physical objects, events, interactions.'[68]

Two more features of the Moorean propositions ought to be noted here, before moving on to *Proof of the External World*. The propositions are non-technical. Whereas it takes significant expertise to calculate the precise age of the Earth or the number of other humans on the planet, Moore's propositions are, he claims, knowable – and indeed known – by him and many others. They are also context-independent.

[66] At the time of writing, before the advent of space travel or its even being regarded as a possibility, this was true. We could easily amend this to our current needs to read something like 'no body has ever been farther from the Earth than the orbit of the Moon.' The question of what is going on when truisms like these change, and how this affects our world-picture, will be addressed in detail in Chapters 4 and 5.
[67] Moore (1959a), pp. 33-34.
[68] Moyal-Sharrock (2007), p. 85.

Anyone could say, in the exact same phrasing, identical propositions to the ones Moore enunciates, and they would remain meaningful and obviously true.

2.2.2 *Proof of an External World*

In *Proof of an External World*, Moore was addressing the concern as to whether it is possible for humans to be certain about any sort of contingent proposition. Even at the time, this was not a new concern. Descartes sought to respond to the challenge of scepticism with the *cogito*.[69] The tradition goes back far further still. Although there is some debate as to whether Pyrrho himself was a sceptic, that which derived from his thought, Pyrrhonism, certainly advocated a sceptical approach, and therefore we can trace this line of thought back to the third century B.C.

Scepticism is not usually seen as a claim, or set of claims. Scepticism is usually used as an attack on a theory, presenting the challenge of proving that one can be certain of the more basic premises on which the theory's conclusions rest. Scepticism can be applied to almost any area of philosophy, from the specific to the general. We have already seen the difficulty of rejecting the former of these sorts of attacks in §1.5 with the brief exploration of Kripke's sceptical challenge for meaning. One might also be a sceptic about the existence of other minds, abstract objects, or any number of other things the existence of which philosophers may doubt. Kripke's argument, however, is a very particular and specialised instance of scepticism.

Proof of an External World, in contrast, seeks to show simply that knowledge of physical things beyond our own minds is possible. In this paper, Moore is ostensibly situating himself as opposed to the idealist. We might term idealism as disbelief in external, physical objects, and scepticism, in this case, as doubt about their existence. The idealist puts forward the thesis that there is no external world; the sceptic doubts the existence of the external world. It causes us no problems to couch Moore's paper as responding to a sceptical challenge, even if Moore has not explicitly set himself against one. Provided we do not seek to rebut the sceptic by proving the lack of

[69] Descartes (2006), p. 68.

existence of the external world – which, whilst an unlikely tactic, would technically uphold the idealist's position – but rather by proving that it does exist and we can have knowledge of it, then by refuting idealism the corresponding sceptical position will also become untenable. Wittgenstein himself seems to conflate the two in *On Certainty*, so for our purposes we need not be too concerned with the distinction.[70]

Moore's argument is traditionally described as follows, consisting of two premises and a conclusion:

1. Here is one hand (said whilst raising a hand)
2. Here is another hand (said whilst raising the other hand)
3. Therefore two human hands exist.

Moore's strategy with this argument is to supply two premises of which he, and everyone else, is surer than anything the sceptic could propose in response. The sceptic does not have an argument of his own as such; he merely doubts the premises. As Marie McGinn explains:

> Moore's Proof should be seen as an argument from the inability of scepticism to bring conviction that our ordinary judgements and knowledge claims are false or unwarranted, to its complete intellectual bankruptcy.[71]

Despite the name of the paper, however, this is not a proof in the ordinary sense. Whilst Moore may hope to prove the existence of the external world, he cannot call this a proof because the premises themselves cannot be proved. Moore points out that if someone were to request a proof 'Here's one hand and here's another', what they are requesting 'is not merely a proof of these two propositions, but something like a general statement as to how *any* propositions of this sort may be proved.'[72] Yet this need not, Moore insists, damage the validity of the conclusion, for 'I can know things,

[70] See, for example, OC §§19, 24, and 37.
[71] McGinn, M (1989), p. 161.
[72] Moore (1959b), p. 149.

which I cannot prove; and among things which I certainly did know, even if (as I think) I could not prove them, were the premises of my two proofs.'[73]

At first glance, Moore has not refuted the idealist here. The idealist may well grant Moore his argument, but deny that two human hands exist independently of any minds. The idealist would argue that the presence of these two hands is merely an idea, and that ideas are mind-dependent. However, hidden behind these three sentences are some further steps. As Moyal-Sharrock notes, 'this endeavour began with an *act*, the act of showing his hand, and this purported to be a display of knowledge.'[74] The action locates the object of Moore's statement at a particular point in time. Stroll therefore suggests that 3, the conclusion, ought to be amplified to read:

4. Therefore two human hands exist at this moment.[75]

This, however, is still not enough to refute the idealist. The idealist may well accept this proposition, but still claim that the hands exist only in the mind. Moore has not yet shown the mind-independence of the existence of the two human hands existing at this particular moment. At the beginning of the paper, Moore made it clear that, following from Kant, he was concerned with proving 'the existence of things outside of us.'[76] Moore also takes great care to point out that he interprets Kant's 'the existence of things outside of us' to mean 'things external to *our minds*.'[77] He further defines these as things that are 'to be met with in space.'[78] Moore is careful to exclude things like after-images and pains. There are, therefore, two further points, tacitly implied in Moore's proof, but not explicitly stated:

5. The existence of any human hand does not depend upon our being in a certain psychological state.

6. Anything whose existence does not depend upon our being in a certain psychological state exists outside of our minds, i.e. mind-independently.

[73] Moore (1959b), p. 150.
[74] Moyal-Sharrock (2004), p. 13.
[75] Stroll (1994), p. 56.
[76] Moore (1959b), p. 127.
[77] Moore (1959b), p. 129.
[78] Moore (1959b), p. 129.

A stronger conclusion – better adapted to refuting the idealist – can now be deduced from the preceding three extra premises:

7. Two human hands now exist mind-independently.[79]

This we will call Moore's proof, even though it is not strictly what Moore himself set out. Concurring with Stroll, this is clearly what Moore intended; all that has been done here is to draw out the steps that were left tacit. The new formulation is somewhat less elegant than the original three-step proof, but the extra steps render it a far stronger argument in refuting idealism or scepticism.

There still remains the problem of the initial premises. The problem is not really that Moore has not proved the premises. If we had rigorously to prove every premise we ever used in a proof, we would have an almost infinite regression, being forced to prove each subsequent set of premises further and further back. The proof, such as it is, still bears all the hallmarks of a rigorous proof: the premises are different from the conclusion; the premises are known to be true; the conclusion follows from the premises (given the expanded set of premises, 4, 5, and 6). The difficulty lies in that even if we did have to face this kind of regressive series of proofs for every premise we ever constructed, we can at least, in most cases, imagine how this might be achieved, even if we have no inclination to do so. But the case here is different. Moore simply cannot – rather than has not bothered to – say how he knows them to be true, but know them to be true he does and so, the implication is, does nearly everyone else.

A Defence of Common Sense focuses on the breadth of the truisms, in terms of the sheer variety of seemingly empirical concerns the propositions address. A different

[79] Much of this analysis of *Proof of an External World* is derived from Stroll (1994), in particular p56-60. Stroll lists this seventh proposition, the new conclusion, as 'Two human hands now exist mind-independently of us'. This is surprising, as he devotes a great deal of time to analysing Moore's take on Kant, and the importance of defining 'outside of us' as 'external to our minds.' Why he then proceeds to revert to a formulation that he has previously claimed, correctly, to be somewhat vague and open to debate I cannot understand.

point is at issue when looking at *Proof of an External World*. It has been noted that Moore cannot prove his premises. Yet, consider Moore's initial two claims, about having two hands, in the absence of any complex philosophy or theorising. We would, ordinarily, consider such truisms so deeply embedded in our lives that we can accept Moore's premises without ever considering it a requirement that they be proved. The premises lie, so to speak, at a certain depth in our lives. These themes of breadth and depth will be returned to in Chapter 3. First we are in need of a basic understanding of Wittgenstein's response in *On Certainty* to Moore's two papers, and of the features of Moore's thought Wittgenstein found so intriguing yet fatally flawed.

2.3 The distinction between certainty and knowledge

In the first remark of *On Certainty*, Wittgenstein states: 'If you do know that *here is one hand*, we'll grant you all the rest' (OC §1). Despite first appearances, it becomes clear that this is a somewhat sardonic comment, although it is some time before he feels he can state explicitly that 'Knowledge and certainty belong to different *categories*' (OC §308). Ultimately, Wittgenstein denies that Moore knows that he has a hand.

This denial may seem peculiar, but what he is really saying is that Moore is certain that he has a hand, but doesn't know it, because knowledge and certainty are very different things. The latter, in this context, is not merely an added emphasis upon the former.[80] Instead of claiming knowledge about such things, he insists the question we must ask is 'whether it can make sense to doubt it' (OC §2). He soon returns to this topic, expanding upon it. 'Now do I, in the course of my life,' he says, 'make sure that I know that here is a hand—my own hand, that is?' (OC §9). We do not. It is something that we take for granted. Taking this point further will enable us to see the relationship between knowledge and doubt.

2.3.1 *Doubt and mistake*

There are parallels with this line of thought in *Philosophical Investigations*. There, Wittgenstein notes that:

> The use of the word "rule" and the use of the word "same" are interwoven. (As are the use of proposition and the use of "true".) (PI §225)

As we saw in Chapter 1, the concept of a rule has no meaning without a repeated custom, the same practice carried out again and again. There is a similar relationship

[80] Again, cf. OC §8.

between the words ‘knowledge’ and ‘doubt’. If someone doubts a proposition, *p*, they could be said not to know *p*. Similarly, if someone simply has no opinion or knows nothing about *p*, they could be said not to know *p*. In either case, empirical evidence and arguments could be marshalled on behalf of either side, in favour of *p* and against *p*. As such, it makes sense to say of someone that they doubt *p*. When it comes to a Moorean proposition, though, ‘[g]rounds for doubt are lacking! Everything speaks in its favour, nothing against it’ (OC §4).

Wittgenstein acknowledges that the sorts of propositions Moore expounds as truisms, the Moorean propositions part of a common-sense view, hold a specialised status in our lives (OC §137). But he does not concede that we know them. These, says Wittgenstein, are not candidates for knowledge because it is impossible to doubt them. Were someone to doubt that she herself had a body, or that there currently exist many other humans, or that the Earth had existed for many years before she was born, we would tell her she was not making sense. She must be deluded, drugged, or perhaps joking. What evidence for her doubts could she provide? It would seem none – at least, none that we could take seriously – and so grounds for doubt are lacking.

To make sense of knowledge, then, it must have a criterion for correctness.[81] It must be possible for one to be wrong about an empirical proposition. This thought, too, finds its root in *Philosophical Investigations*. In this passage, Wittgenstein raises concerns about the use of ‘to know’ similar to those explored in *On Certainty*:

> If we are using the word “to know” as it is normally used (and how else are we to use it?), then other people very often know when I am in pain.—Yes, but all the same not with the same certainty with which I know it myself!—It can’t be said of me at all (except perhaps as a joke) that I *know* I am in pain. What is it supposed to mean—except perhaps that I *am* in pain?
>
> . . .

[81] See PI §§258-261 for Wittgenstein’s exploration of the example of someone writing the word ‘S’ in a diary each time he feels a particular sensation.

> The truth is: it makes sense to say about other people that they doubt whether I am in pain; but not to say it about myself. (PI §246)[82]

Mistake or doubt can occur with regards to someone else's pain. Perhaps in a sports match I am not sure whether they are faking an injury. I could then, too, decide they are indeed faking, only to be wrong about it. But to say of myself that I know I am in pain or that I doubt I am in pain suggests that I could be mistaken if wrong or persuaded if in doubt. That, says Wittgenstein, does not make sense, and so knowledge has no application in this language-game. Saying 'I know that I am in pain' is no more than a grammatical deceit; all we are really trying to say is, 'I am in pain'.

It is interesting to note that in the passage above Wittgenstein refers to his own ascriptions of pain to himself as a form of certainty. Taken in conjunction with Wittgenstein's remark in On Certainty – 'For to say one knows one has a pain means nothing' (OC §504) – not only is the distinction between knowledge and certainty reinforced, but clear links can be made with his earlier thought from *Philosophical Investigations*. The distinction is made on the same grounds: doubt and mistake are logically meaningless in these cases. The Moorean propositions are instances of certainty, not of knowledge.

2.3.2 *Certainty – a continuing theme in Wittgenstein's later thought*

There are several references in *Philosophical Investigations* to certainty or being certain of something. In every instance, certainty is used to mean something like 'cannot be wrong'. Just as Wittgenstein's use of certainty in *On Certainty* differs from the everyday use of the term – where it might mean being just particularly sure of something – his use of certainty in *Philosophical Investigations* functions in a similar way. Taking PI §324 as a further example to the discussion of PI §246 above, Wittgenstein compares the certainty that he can continue a basic numerical series with his certainty that if he were to drop the book he is holding it would fall. Wittgenstein:

[82] Cf. PI §288.

> would be no less astonished if [he] suddenly and for no obvious reason got stuck in working out the series, than [he] should be if the book remained hanging in the air instead of falling (PI §324).

The idea here is one that pre-figures frequent comparisons in *On Certainty* between our certainty of mathematical propositions and the sorts of empirical propositions that have become part of our frame of reference. To begin the process of drawing out such comparisons, consider first:

> When someone is trying to teach us mathematics, he will not begin by assuring us that he knows that a+b=b+a (OC §113).

The implication here is that basic mathematical propositions like these are not objects of knowledge, but rather of certainty. From the certainty Wittgenstein associates with mathematical propositions, he suggests that non-mathematical examples might play a similar role in our lives:

> I cannot be making a mistake about 12x12=144. And now one cannot contrast mathematical certainty with the relative uncertainty of empirical propositions. For the mathematical proposition has been obtained by a series of actions that are in no way different from the actions of the rest of our lives (OC §651).[83]

> If the proposition 12x12=144 is exempt from doubt, then so too must non-mathematical propositions be. (OC §653)

This idea of non-mathematical certainties also finds expression in *Philosophical Investigations*:

> I shall get burnt if I put my hand in the fire: that is certainty.
> That is to say: here we see the meaning of certainty. (What it amounts to, not just the meaning of the word "certainty.")

[83] Cf. PI, p. 192.

(PI §474)

Both what this particular certainty amounts to and the manner in which it is demonstrated is, fundamentally, action-based. I will flinch and keep my hand away if the source of fire is brought near. When cooking over, or trying to light something with, the fire, I will ensure my hand stands no danger of being burnt by it. If someone were to be burnt by it, we would have to distinguish a mistake from an aberration. A mistake would be if I became distracted or physically slipped and burnt myself. But it would be an aberration – we would think someone deluded – if she were to plunge her hand in the fire intentionally and expect not to get burnt. Certainties are enacted; they are not a particular mental state indicating just a contingent lack of doubt, but rather the logical impossibility of doubt. Even '"[m]athematical certainty" is not a psychological concept' (PI, p. 191).

Just as the certainty that if I put my hand in the fire I shall get burnt is constituted and demonstrated by my actions, so too are mathematical certainties.[84] As discussed in Chapter 1, I demonstrate my mathematical ability by actively continuing the series, be it verbally, writing on paper, or arranging some magnetic numbers on a board. Once we have mastered these mathematical techniques, we remove them from a heuristic context and take them out into the world. We calculate how to split a restaurant bill, whether we have enough tennis balls for all the courts being used for a tournament, or how many rolls of wallpaper will be needed to cover a room.

I demonstrate my certainty that the fire can burn me by avoiding getting too close to the fire. I demonstrate my certainty of gravity – that is, that the book will fall if dropped – by asking someone to carry a book for me if my hands are full, or to open the door for me, because if I release the books I know they will drop. Pointing to an internal sensation is futile in demonstrating a certainty:

> Ask, not: "What goes on in us when we are certain that . . . . ?"—but: How is 'the certainty that this is the case' manifested in human action? (PI, p. 191)

[84] See PI §§138-242.

Wittgenstein's relatively tentative forays into certainties in *Philosophical Investigations* do not receive a full development until *On Certainty*. Nonetheless his conception of the role certainties play in our lives in *Philosophical Investigations* is at least the germination of the ideas developed in *On Certainty*. Certainty is not an internal psychological concept or state. Certainty is demonstrated and constituted by human actions. Doubt and mistake are not applicable to certainties; we would consider an error an aberration stemming from a delusion or mental illness. All of these strands of thought are present in both *Philosophical Investigations* and *On Certainty*.

2.3.3 *Stroll on negational absurdity*

Non-mathematical certainties are a part of our lives and Wittgenstein wants to identify the Moorean propositions as certainties like these. Doubt and mistake have no role in these certainties, and therefore claims to know them are nonsensical. One cannot be mistaken about having a body or the Earth existing for a long time before one's birth any more than one can be mistaken about the sum '12x12=144'. The consequences of doubting any of these things would be bizarre. Avrum Stroll introduces the concept of negational absurdity when he argues that 'the denial of any primordial p has the property of being negationally absurd.'[85]

That is to say that the denial of any proposition that makes up part of the common-sense view – for example, 'I am a human being' – is not simply a mistake that can be accommodated. Rather, it is an aberration. Wittgenstein addresses this point directly in relation to Moore's truisms:

> If Moore were to pronounce the opposite of those propositions which he declares certain, we should not just not share his opinion: we should regard him as demented (OC §155).

[85] Stroll (1994), p. 45. Stroll uses the term 'primordial' to refer to the Moorean propositions.

Or, as Rhees puts it, if things like the Moorean propositions:

> are called into question we wouldn't know what to say; we wouldn't be able to carry on language at all.[86]

Moore and Wittgenstein agree to the extent that anyone denying something along the lines of a Moorean proposition cannot be taken seriously; their claims would be absurd. They disagree in that whereas Moore is content to state them, and claim he knows them, Wittgenstein does not think it makes sense even to affirm them, except in very specialised contexts. OC §468 illustrates this point:

> Someone says irrelevantly "That's a tree". He might say this sentence because he remembers having heard it in a similar situation; or he was suddenly struck by the tree's beauty and the sentence was an exclamation; or he was pronouncing the sentence to himself as a grammatical example; etc., etc. And now I ask him "How did you mean that?" and he replies "It was a piece of information directed at you." Shouldn't I be at liberty to assume that he doesn't know what he is saying, if he is insane enough to want to give me this information? (OC §468)

Of course, one could imagine a situation in which it makes perfect sense to state 'That's a tree'. Perhaps someone else is in doubt as to whether the shape on the horizon is a person or not, or a novice botanist asks an experienced colleague whether what she sees before her is a tree or a shrub, and the colleague provides the answer. Wittgenstein makes a point like this early in *On Certainty*:

> "A" is a physical object" is a piece of instruction which we give only to someone who doesn't yet understand either what "A" means, or what "physical object" means. Thus it is instruction about the use of words, and "physical object" is a logical concept. (Like colour,

[86] Rhees (2003), p. 70.

> quantity, . . .) And that is why no such proposition as "There are physical objects" can be formulated.
>
> Yet we encounter such unsuccessful shots at every turn (OC §36)

Apropos of nothing, though, such affirmative statements are just as absurd as their respective negations. Moore's claims that he is a human and the Earth is very old do not count as one of these specialised circumstances; presumably Moore does not feel the need to explain to us what the terms 'human' or 'Earth' mean. Wittgenstein is characteristically scathing about the sorts of claims philosophy attempts:

> I am sitting with a philosopher in the garden; he says again and again, "I know that that's a tree", pointing to a tree that is near us. Someone else arrives and hears this, and I tell him: "This fellow isn't insane. We are only doing philosophy" (OC §467).

Consider replacing the garden with a lecture hall, and the claim about the tree with the claim that 'The Earth is very old' or 'There exists at present a living human body, which is *my* body'. We would be within our rights to 'regard him as demented' (OC §155). If philosophy of this sort is supposed to legitimise such utterances, then perhaps such practices are insane, too.

The distinction between knowledge and certainty, therefore, points to certainties as having a different role in our lives from ordinary empirical propositions. It does not make sense either to affirm or to deny them. That role is something like standing fast for us, immune from doubt or even expression:

> Instead of "I know…", couldn't Moore have said: "It stands fast for me that…"? And further: "It stands fast for me and many others…" (OC §116)

Thus, certainties cannot be expressed – or denied – in propositions, at least in most circumstances. Where a sentence that, on the surface, seems to be a certainty is expressed, it only resembles a certainty in a superficial way. It is not being used as

one. A wounded soldier might say ‘Here is a hand’, to indicate that he has only one, the other having been destroyed on the battlefield. Although this sentence is, in form, identical to Moore’s original premise, it is used in response to a specific question, perhaps at the triage station. Moore’s, by contrast, was ‘a piece of superfluous information’ (OC §460), and therefore seemed ‘odd’ (OC §389) or a ‘joke’ (OC §463). As the next section will explain, certainties seem so peculiar when expressed because they are misguided attempts to verbalise ungrounded ways of acting.

2.4 An ungrounded way of acting and the end of justification

Over the course of several passages spread throughout *On Certainty*, Wittgenstein considers what it is that makes propositions of the sort attempted by Moore sound so peculiar. In §7, Wittgenstein asserts that:

> My life shows that I know or am certain that there is a chair over there, or a door, and so on.—I tell a friend e.g. "Take that chair over there", "Shut the door", etc. etc (OC §7).[87]

These are very localised examples, about everyday objects. Moore's claims, particularly in *A Defence of Common Sense*, were far broader. Similarly, though, my life shows that I am certain of the existence of my body, of the bodies of other humans, and that the Earth is very old. I move in a way that demonstrates my lack of doubt that I have hands and legs. I move out of the way of passers-by. Perhaps I read history books and debate with a friend –another human with a body of her own that has also never been far from the surface of the Earth – whether Shakespeare's portrayal of Richard III was a fair one. My friend and I do not, as a preliminary to our discussion, feel the need to ascertain whether the Earth really is old enough to accommodate a writer from four hundred years ago and a monarch from five hundred and fifty years ago.

We act in a way that demonstrates our certainty that we have hands and that the Earth is very old 'without learning any explicit rules' (OC §95). If asked to justify such certainty, we would be at a loss. Unlike an ordinary empirical proposition, for which we ask for and are supplied with evidence, we learn such matters indirectly:

> I do not explicitly learn the propositions that stand fast for me. I can discover them subsequently like the axis around which a body rotates.

[87] The equivocation between 'know' and 'am certain' in this passage can be put down to this remark being from the earliest stages of Wittgenstein's treatment of the topic. Within a few more remarks his phrasing settles down and he becomes more comfortable with the distinction between knowledge and certainty he spends much of the rest of the book investigating.

> This axis is not fixed in the sense that anything holds it fast, but the movement around it determines its immobility (OC §152).

In practice, this results in the fact that:

> Children do not learn that books exist, that armchairs exist, etc., etc.—they learn to fetch books, sit in armchairs, etc., etc. (OC §476)

In §1.3, we looked at how Wittgenstein wanted to describe linguistic use as a practice. This point was revealed in the discussion of how one demonstrates competence in a practice: mastery of a technique. The pupil showed that he had understood how to continue the series by actually continuing the series, performing particular actions. It is notable that Wittgenstein was so intrigued by Moore's response to the sceptic, which, as it was formulated earlier, contained an action as part of the premises. Recall the original formulation of Moore's proof:

1. Here is one hand (said whilst raising a hand)
2. Here is another hand (said whilst raising the other hand)
3. Therefore two human hands exist.

Moore points to his action – that of raising his hand – as part of the persuasive power of his premises. Wittgenstein, in *Philosophical Investigations,* does something similar with regards to rule-following. In response to a request for justification as to why one follows a rule as one does, Wittgenstein points to an action, and there lets justification stop:

> "How am I able to obey a rule?"—if this is not a question about causes, then it is about the justification for my following a rule the way I do.
>
> If I have exhausted the justifications I have reached bedrock, and my spade is turned. Then I am inclined to say: "This is simply what I do." (PI §217)

In the course of teaching the pupil, the rules themselves are not up for investigation or debate. One can doubt that the teacher has got the rule right – perhaps he has come into class drunk or short on sleep – but not that the rule itself is right. Presuming he is of sound mind, if asked to justify his following and teaching the steps of the rule as he does, he would say 'This is simply what I (or the community of competent mathematicians) do.'

We find this gesturing to an ungrounded way of acting in *On Certainty*, too. For when Wittgenstein asks: 'Now do I, in the course of my life, make sure that I know that here is a hand—my own hand, that is?' (OC §9), the answer is clearly that no, we do not. One would not, in the course of a complex mathematical computation, make sure that one knows the sum '12x12' really equates to '144'. In §1.3, parallels were drawn between mathematical examples of following a rule and linguistic ones. In relation to *On Certainty*, mathematical examples are again useful as a way of illustrating the type of certainty we have about non-mathematical things. Wittgenstein, at several points, explicitly equates the two:

> We know, with the same certainty with which we believe any mathematical proposition, how the letters A and B are pronounced, what the colour of human blood is called, that other human beings have blood and call it "blood" (OC §340).

Consider again OC §651, this time with the final clause included:

> I cannot be making a mistake about 12x12 being 144. And now one cannot contrast mathematical certainty with the relative uncertainty of empirical propositions. For the mathematical proposition has been obtained by a series of actions that are in no way different from the actions of the rest of our lives, and are in the same degree liable to forgetfulness, oversight, and illusion (OC §651).

Mistake – forgetfulness, oversight, and illusion – is always possible. I might go wrong in my computation, or forget, for a moment, how the letters A and B are pronounced. Genuine doubt, though, sincere and lasting, is impossible for both these mathematical

examples and as to whether I have a hand, which is my own hand. These things cannot be doubted because doubt demands evidence, justification for why one believed it in the first place. But for these examples, these objects of certainty, justification has no role to play because we did not learn them like ordinary propositions. It is not the case that a demand for justification is never appropriate: 'To be sure there is justification; but justification comes to an end' (OC §192).

When an investigation reaches the level of certainties, we have hit bedrock, and are inclined to say: "This is simply what I do" (PI §217), for 'somewhere we must be finished with justification' (OC §212). The end to the search for justification, though, is not like giving up, or taking something on trust, or settling for an assumption:

> Giving grounds, however, justifying the evidence, comes to an end;— but the end is not certain propositions' striking us immediately as true, i.e. it is not a kind of *seeing* on our part; it is our *acting*, which lies at the bottom of the language-game (OC §204).

Justifying and providing evidence comes to an end when we point to an action – or network of actions – and say 'This is simply what I do'. These are features of our lives that are so obvious as to sound odd when expressed in the form of a proposition. In the case of Moore's proof, no one seriously doubts whether or not they have two hands; everything they do in life belies their certainty about this. To hear it expressed as a proposition, though, strikes us as strange.

Although we can, clumsily, attempt to formulate a proposition to describe these ways of acting, the peculiar feature of them is that, whilst their expression looks like an empirical proposition, it functions in a way more like a rule. Moyal-Sharrock neatly summarises this point when she says:

> Whereas Moore in his 'Proof' treated then as empirical propositions and attempted to *prove* their indubitability, Wittgenstein views them as logical, and *presupposes* their indubitability. For Wittgenstein,

> then, these are indubitable not as in: *proved beyond the shadow of doubt*, but as in: *not subject to doubt at all*.[88]

These ways of acting, not subject to doubt, 'stand fast' (OC §234) for us. Although on the surface it may seem it, 'not everything that has the form of an empirical proposition *is* one' (OC §308). Some so-called propositions have 'a peculiar logical role in the system of our empirical propositions' (OC §136). As we will see in §2.5, this peculiar role is to ordinary life what grammatical rules are to language; they provide a structure and a framework of indubitability, without which none of our other actions could make sense. A certainty, therefore, has 'the character of a rule' (OC §494)[89], and so is not subject to empirical justification. Wittgenstein locates the end of justification as lying with an ungrounded way of acting.

[88] Moyal-Sharrock (2007), p. 86.
[89] Again, cf. PI §217.

2.5 Hinges

The types of so-called propositions we hold to be certain have been described as being learned indirectly. Hence why their expression in the form of a proposition sounds strange. There is no role for such utterances in our language-games because they function more like logical rules, and 'everything descriptive of a language-game is part of logic' (OC §56). For a competent mathematician to assert, for no particular reason, that '12x12=144' – even though he regularly performs computations that make it clear he has never held this in doubt – would be strange in the same way it would be for a human being of sound mind, like Moore, to assert that the Earth is very old.

Wittgenstein deploys a metaphor to make sense of these ways of acting that function as part of logic. The metaphor is an important one, because the phrasing has lead in the literature to a common way of describing these pseudo-propositions – or, rather, the ways of acting Moore attempts to express in pseudo-propositions – as 'hinges'.

> (T)he *questions* that we raise and our *doubts* depend on the fact that some propositions are exempt from doubt, are as it were like hinges on which those turn (OC §341).

The terms 'hinges' and 'certainties' are henceforth used interchangeably throughout this thesis. Hinges provide a network of actions immune from doubt so that other investigations can proceed without having to justify every premise in an infinite regress of the sort described in §2.2. Taken in this way, we would be wrong to consider them ordinary, empirical propositions. The point, though, is descriptive, not prescriptive, for:

> it belongs to the logic of our scientific investigations that certain things are *in deed* not doubted (OC §342).[90]

[90] As we will see in the Chapter 4, it will be fruitful to compare the hinges specifically relating to scientific practices with the 'established bases' that make up a scientific paradigm for Kuhn in *The Structure of Scientific Revolutions*.

It may seem a prosaic point, but it is of great importance that the two words in italic are split, not the single word 'indeed'.[91] It is a fact of scientific investigation that some things are not doubted *in deed*.[92] If scientific investigations suffered from the same demand for justification the sceptic places on Moore, progress would stall. It is essential to an investigation into, say, the heat-conducting properties of a new man-made material that we do not call into question, without good cause, the accuracy of our apparatus, or the basic laws of thermodynamics. For:

> we just *can't* investigate everything, and for that reason we are forced to rest content with assumption. If I want the door to turn, the hinges must stay put (OC §343).

Although '*Annahme*' is correctly translated as 'assumption', it is not a cognitive assumption, in the sense that we are conscious of a difficulty and content to ignore it. That would be to render these hinges as propositions; something which, as we have seen, Wittgenstein takes issue with. These are ways of acting, and rather than my cognitive capabilities being satisfied with an assumption, 'My *life* consists in my being content to accept many things' (OC §344).

So, for the scientist working on heat-conducting properties, some hinges must stay put if he wants to proceed with the rest of his investigation. In the broader context of human life – hinges like the age of the Earth, that I have two hands and a human body, that there exist objects in the external world – these must also stay put if I want to do anything from pick up a book to discuss the fairness of Shakespeare's portrayal of Richard III. Wittgenstein provides further inventive illustrations, all emphasising that hinges are ways of acting. Sometimes they are to do with the mastery of a specific technique, like playing chess:

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[91] The translation of the German, *in der Tat*, might more idiomatically be translated as 'in fact' or 'actually'. However Denis Paul and G.E.M. Anscombe are justified in their choice of translation by focusing on the fact that these are actions, i.e. *deeds*. Compare this, too, with PI §546: 'Words are also deeds.'

[92] See also CV, p. 36: "Language – I want to say – is a refinement, 'in the beginning was the deed.'"

> When I am trying to mate someone in chess, I cannot have doubts about the pieces perhaps changing places of themselves and my memory simultaneously playing tricks on me so that I don't notice (OC §346).

Or performing mathematical computations:

> The mathematical proposition [12x12=144] has, as it were officially, been given the stamp of incontestability. I.e.: "Dispute about other things; *this* is immovable—it is a hinge on which your dispute can turn" (OC §655).

But also do with everyday practices:

> Imagine a language-game "When I call you, come in through the door". In any ordinary case, a doubt whether there really is a door there will be impossible (OC §391).

Hinges are neither true nor false. If they are part of the logic of our lives, like rules, ascriptions of truth-values are misplaced here. In other words, they are not empirical propositions. Wittgenstein, in *Remarks on the Foundations of Mathematics*, considers mathematical rules in a similar way:

> Is $25^2 = 625$ a fact of experience? You'd like to say: "No".—Why isn't it?—"Because, by the rules, it can't be otherwise."—And why so?—Because *that* is the meaning of the rules. Because that is the procedure on which we build all judging (RFM, VI-28, p. 330).

Wittgenstein goes on to claim that 'when we carry out a multiplication, we give a law', and contrasts 'the law [with] the empirical proposition that we give this law', further stating that he knows how to enact the law 'with certainty' (RFM, VI-29, p. 330). The law itself is a way of acting, and Wittgenstein distinguishes between the law and the expression of that law as a proposition. Whilst in mathematics the expression of such laws do not sound quite so strange as they might when we try to

express logical laws like 'The Earth is very old', the point remains the same: the laws themselves are deeds, because 'following a rule is a human activity' (RFM, VI-29, p. 331).[93]

The frequent use of mathematical examples is apt because we see here in *Remarks on the Foundations of Mathematics* a further prefigurement of a crucial aspect of Wittgenstein's conception of certainty. The rules of mathematics, Wittgenstein noted, provide 'the procedure on which we build all judging' (RFM, VI-28, p. 330). Several times, comparisons have been made between the role of rules in mathematics and those of the hinges in ordinary life, be it engaging scientific investigations, playing chess, or simply picking up a book.

Hinges provide the procedure on which we build all judging in a more general way, not restricted solely to mathematics. Only by taking it as read, for example, that the Earth is very old can we discuss historical figures or events. We will return to this point in much more detail in the next section of this chapter, §2.6, when we examine the concept of the world-picture, made up of the network of hinges, culminating in a 'frame of reference' (OC §83) within which all our practices function. First, a point of contention in recent scholarship needs to be examined: whether hinges should be regarded as propositional or non-propositional.

2.5.1 *A propositional or a non-propositional account of hinges?*

Hinges are habitual ways of acting that make empirical investigations possible, by themselves remaining immune from doubt. This was the basis on which certainty was distinguished from knowledge. Certainties cannot meaningfully be doubted, whereas propositions – objects of knowledge – can have evidence to support either side of the argument, there is no such function for certainties. Attempting to express hinges, either to cast doubt on them or simply to assert them apropos of nothing, results in nonsense. Stroll's concept of negational absurdity illustrated this point succinctly. Any attempt to affirm or negate something that is properly an object of certainty, not

[93] Cf. PI §§23, 197 and OC §§140, 501.

of knowledge, in the form of a proposition is liable to render the speaker insane or deluded in our eyes.

There is a tension, though, in that Wittgenstein, following Moore, does give examples of certainties in propositional form. He addresses Moore's claims to 'know that *here is one hand*' (OC §1) and finds fault with the knowledge claim, whilst simultaneously praising Moore for isolating some interesting features of our language. Likewise, I have made frequent use of purported certainties such as 'The Earth is very old', as does Wittgenstein (see, for example, OC §§85 and 89). It is not a reasonable defence, though, to state that it is all right really, because we are doing philosophy, and that it is only in ordinary language that we get ourselves in a muddle; all we are trying to do is clear up some of these confusions. Our use of them in philosophy presents the very 'propositions which one comes back to again and again as if bewitched—these [Wittgenstein] should like to expunge from philosophical language' (OC §30).[94]

On the one hand, we can, and Wittgenstein does, express these in the form of empirical propositions. Not only that, but they seem to make sense in that they contain familiar words in a meaningful syntactical structure. That is to say, 'There are countless general empirical propositions that count as certain for us' (OC §273). On the other hand, the starting point for *On Certainty* is precisely that they are not empirical propositions, at least not in the context originally intended by Moore. This alternative conception is perhaps best embodied by a remark we have already looked at:

> Giving grounds, however, justifying the evidence, comes to an end;—but the end is not certain propositions' striking us immediately as true, i.e. it is not a kind of *seeing* on our part; it is our *acting*, which lies at the bottom of the language-game (OC §204).

There are two considerations to take into account that go some way to relieving this tension. The first is that *On Certainty* is an unfinished work. Where we see confusion in the text, this confusion is often a symptom of Wittgenstein's own uncertainty as to

[94] Compare this, too, with another caustic remark, perhaps only partly in jest, at OC §467: 'This fellow isn't insane. We are only doing philosophy.'

how to proceed. The apt metaphor or analogy is not just an illustrative device for Wittgenstein, but an integral part of the process. Seeing connections between metaphors and their targets is just as important as seeing them between uses of words in the context of language-games. It is therefore not surprising that the tension exists.

This point, though, does not necessarily excuse the tension, or render it trivial; it merely explains its presence. Part of the problem is that in conveying his ideas by writing, various avenues of explanation are cut off from the author. Wittgenstein cannot, as we sometimes feel he might like to, point out with a physical gesture some aspects of life for a comparison, intending to convey what he means. As he notes in *Philosophical Investigations,* 'Your questions refer to words; so I have to talk about words' (PI §120).

There is no other way to indicate clearly what his target is when differentiating between objects of knowledge and those of certainty. To an extent, Wittgenstein's style avoids transgressing his own boundaries as much as possible. He does not quote the Moorean propositions, but only alludes to them in OC §1. If we keep in mind, though, that at least at some points, in order to be clear, he has to express the propositions that he thinks should not be said – those that might lead an observer to think him 'insane' (OC §467) – then Wittgenstein's uncertainty as to how to proceed can be cast in a different light.[95] Not only is he unsure of the resolution to the questions he poses himself, he is also acutely aware that the rendering of the expression of the problem in a straightforward way presents symptoms of the problem itself. Hence why, in a bracketed subnote to §387, he comments:

> I believe it might interest a philosopher, one who can think for himself, to read my notes. For even if I have hit the mark only rarely,

[95] There are obvious comparisons to be made with this approach and the ladder metaphor of the *Tractatus*: 'My propositions serve as elucidations in the following way: anyone who understands me eventually recognizes them as nonsensical, when he has used them—as steps—to climb up beyond them. (He must, so to speak, throw away the ladder after he has climbed up it.) He must transcend these propositions, and then he will see the world aright' (TLP 6.54). For a brief but nuanced discussion of the ladder metaphor solely in regard to the *Tractatus*, see Hacker (2001), pp. 327-331. For an extreme view from the New Wittgenstein school of thought, see Read (2007), where he presents an ineffabilistic reading of both the *Tractatus* and *On Certainty*.

> he would recognise what targets I have been ceaselessly aiming at (OC §387).

The target is unusually clear for Wittgenstein: certainties are ways of acting, expressible in propositional form if we wish, but bound, except in unusual circumstances, to sound peculiar. Avrum Stroll, however, has proposed a different interpretation, whereby *On Certainty* shifts as it progresses with regard to the propositionality of hinges: 'The idea that some propositions are beyond doubt gradually gives way in *On Certainty* to a different, non-propositional account of certainty.'[96]

Even the initial, propositional account, however, according to Stroll, is not propositional in the sense that Moore's account is. The distinction between objects of knowledge and those of certainty remains. Stroll distinguishes the earlier from the later account on the basis that, earlier in the text, Wittgenstein is liable to speak of these special propositions as being immune from the need for justification (OC §192) and a peculiar type of empirical proposition (OC §§35 and 83). Later, more emphasis is placed on '*acting, being trained in communal practices, instinct*, and so on'.[97]

Moyal-Sharrock holds Stroll's account in high regard, but proposes two amendments. The first is that 'there are moments . . . where Wittgenstein actually contemplates a genuine propositional account . . . (e.g. OC §273)', but the propositional and non-propositional accounts are not separate and consecutive.[98] The second is roughly equivalent to my own point, made above, that *On Certainty* is 'indicative of an ongoing, nonlinear, and nonprogressive struggle'.[99] She suggests, therefore, that we "not think of Wittgenstein's 'propositional' and nonpropositional [sic] accounts as *consecutive*", although she still identifies these two distinct strains within the texts.[100]

Stroll's account is not wholly without merit, but when we consider that the phrasing in which Wittgenstein's work is presented was as much a source of agony for him as

[96] Stroll (1994), p. 134.
[97] Stroll (1994), p. 146.
[98] Moyal-Sharrock (2007), p. 89.
[99] Moyal-Sharrock (2007), p. 89.
[100] Moyal-Sharrock (2007), p. 89.

the problems themselves, it seems more plausible that Wittgenstein did not so much develop a non-propositional position out of a propositional one as improve upon his presentation of the issue. The idea that Wittgenstein was initially toying with a propositional account when from the first remark it is clear that he does not think Moore's expressions are suitable for knowledge claims is not a persuasive one.

Moyal-Sharrock's amendments do represent an improvement. However her claim that at some, sporadic moments Wittgenstein did consider a propositional account, just not followed by a non-propositional one, is hard to tally with the overall continuity of Wittgenstein's account. Rather than thinking of Wittgenstein weighing up a propositional and a non-propositional account, it makes more sense to think of him as juggling propositional and non-propositional uses of the same idea. This way of looking at *On Certainty* maintains the undeniable tension within the expression of the idea, but is more sympathetic to Wittgenstein's intentions.

2.5.2 *Propositional or non-propositional: collapsing the distinction*

One aspect that both Stroll and Moyal-Sharrock overlook is that whether one chooses a propositional or a non-propositional account, these look rather like theories. Not, admittedly, the overblown philosophical theories so often a target of Wittgenstein's, but positions with theses to be backed up nonetheless. We ought to remind ourselves to take Wittgenstein's warnings about such matters seriously. A more appropriate source for the tension might be that sometimes one can say things like 'The Earth is very old' as a perfectly reasonable empirical claim, whilst in other circumstances it functions as a certainty, an ungrounded way of acting.

Wittgenstein's primary target is the claims made by philosophers, in particular by Moore. When presented with the claim 'I know that that's a tree', he initially cannot understand the sentence. He takes it at first to be a piece of 'superfluous' information (OC §348) because:

> I don't look for the focus where the meaning is. As soon as I think of an everyday use of the sentence instead of a philosophical one, its meaning becomes clear and ordinary (OC §347).

Finding an everyday use for 'I know that that's a tree' is hardly difficult. Contexts in which teaching is taking place are perhaps the most obvious. Although perhaps not so readily apparent, we could also find similar contexts for any of the other purported certainties: 'The Earth is very old'; 'This is a hand, and it is my hand'; 'There are many other humans with bodies, just like me'. Only when these are presented as context-independent philosophical claims do they cause difficulty.[101] For that reason, it is these uses Wittgenstein 'should like to expunge from philosophical language' (OC §31).

The multiplicity of linguistic use, so key a component to his thought in *Philosophical Investigations*, is Wittgenstein's concern with regard to the apparent tension. He even echoes a memorable remark from *Philosophical Investigations* (already mentioned in Chapter 1):

> Think of the tools in a tool-box: there is a hammer, pliers, a saw, a screw-driver, a rule, glue, nails and screws.—The functions of words are as diverse as the functions of these objects. (And in both cases there are similarities.)
>
> Of course, what confuses us is the uniform appearance of words when we hear them spoken or meet them in script and print. For their *application* is not presented to us clearly. Especially when we are doing philosophy! (PI §11)[102]

And in *On Certainty*, immediately following the discussion of the claim 'I know that that's a tree':

> Isn't the question "Have these words a meaning?" similar to "Is that a tool?" asked as one produces, say, a hammer? I say "Yes, it's a

[101] Q.v. §2.2.1.
[102] Cf. also PI §§14, 15, 41, 42, and 360.

> hammer". But what if the thing that any of us would take for a hammer were somewhere else a missile, for example, or a conductor's baton? Now make the application yourself (OC §352).

In some contexts, phrases like 'The Earth is very old' have an ordinary, empirical application. In others, they are more like rules, belonging to the logical description of our language-games (OC §56). The very fact that we seem to be able to express them, as Moore did, is the source of both deep-lying philosophical confusion and the apparent tension in *On Certainty*. Wittgenstein confirms this analysis of the problem:

> But if someone were to say "So logic too is an empirical science" he would be wrong; Yet this is right: the same proposition may get treated at one time as something to test by experience, at another as a rule of testing. (OC §98)

We are deceived by the perfectly legitimate, though rather rare, circumstances in which a phrase that could be an attempted expression of a certainty is used as an ordinary, empirical proposition. Note that Wittgenstein does not claim that the proposition describes a rule of testing, rather that it is treated as one. The latter formulation emphasises the enacted nature of certainties, and further discredits claims that he was countenancing a propositional account of certainty.

This tension was rightly identified as present by Stroll and Moyal-Sharrock, but wrongly attributed to Wittgenstein's weighing up separate propositional and non-propositional accounts. All we need to overcome this confusion and to dissolve the tension is to note the variety of applications of a single phrase, and treat not just words but whole sentences as being like tools. This is an approach of which Wittgenstein – if we take *Philosophical Investigations* firmly in mind – would surely approve, whilst maintaining hinges as ungrounded ways of acting, unsuitable as objects of either empirical investigation or knowledge claims.

2.6 The *Weltbild* and the riverbed

At OC §§93, 94, 95, 162, 167, 223, and 262, Wittgenstein uses the German term '*Weltbild*', which is best translated as 'world-picture'. With this phrase, Wittgenstein illustrates what we have when we take the sum of our certainties. All certainties that provide the logical rules for all our other investigations are, with this term, grouped as one conglomeration. This grouping, as we shall see, is not necessarily always marked off by sharp boundaries (cf. OC §§52, 97, 318-320, 454) – either, as a whole group, from empirical propositions, or the individual certainties themselves from each other – but it is nonetheless an important and extremely useful conceptual tool in Wittgenstein's analysis.[103]

There is another, comparable term one ought to look out for in *On Certainty*, which we might view as alternative attempts to illustrate the same point: '*Bezugssystem*', which appears at OC §83.[104] The preceding three remarks help to clarify its import:

> §80 The *truth* of my statements is the test of my *understanding* of these statements.
>
> §81 That is to say: if I make certain false statements, it becomes uncertain whether I understand them.
>
> §82 What counts as an adequate test of a statement belongs to logic. It belongs to the description of the language-game.

[103] Compare, too, these remarks from *On Certainty* with those at PI §§76-7, BB, p. 19, and Z §§392, 439.

[104] There is another interesting German term, used only once, and left untranslated in English editions of *On Certainty*: '*Weltanschauung*'. This term is closer to 'world-view' than '*Weltbild*', which is better rendered as 'world-picture'. The use and importance of the term *Weltanschauung* will be addressed in §6.4.1 in relation to some criticisms of Moyal-Sharrock's account of a taxonomy of certainties. For now, it can be left to one side. If we take into account his uses of *Weltanschauung* in other texts, there is no doubt that Wittgenstein was wary of *Weltanschauung*, and preferred *Weltbild*.

> §83 The *truth* of certain empirical propositions belongs to our frame of reference [*Bezugssystem*].

As noted in §2.5, that OC §83 refers to the 'truth of certain empirical propositions' need not be a matter for concern. There is no doubt that he is referring to what have here been called certainties or hinges. They are described in OC §81 as things about which we commit aberrations, rather than mistakes, and in OC §82 as belonging to logic and to the description of the language-game (cf. OC §§56 and 136), and so are not being treated as regular empirical propositions.

The translation of *Bezugssystem*, 'frame of reference' is a useful starting point with which to begin constructing an understanding of the world-picture. Wittgenstein also uses the term once in *Philosophical Investigations*:

> The common behaviour of mankind is the system of reference [*Bezugssystem*] by means of which we interpret an unknown language. (PI §206)

It is notable that even in *Philosophical Investigations* he is focused on a communally practiced network of human actions – the common behaviour of mankind – as a system of reference against which we make other judgements. In *Philosophical Investigations*, his remarks are primarily concerned with interpreting an unknown language, which is unsurprising given that language is the core focus of the *Investigations*. There is also a lack of nuance regarding the common behaviour of mankind in this quotation, in that it is implied that such practices are homogeneous across all humanity. As we will see later in this section as we come to examine the riverbed metaphor of *On Certainty* §§97-99 and again in more detail in Chapters 4 and 5, Wittgenstein develops this view to account for changes and differences between different communities.

Nonetheless, there are similarities in how Wittgenstein is taking ways of acting as providing logical rules, which in turn provide 'the procedure on which we build all judging' (RFM, VI-28, p. 330), between the earlier works and *On Certainty*. Common to all is an understanding of certainties as not being learned explicitly:

> The propositions describing this world-picture might be part of a kind of mythology. And their role is like that of rules of a game; and the game can be learned purely practically, without learning any explicit rules. (OC §95)

In describing a world-picture as a kind of mythology, he is further divorcing the certainties from a propositional role. The role of mythologies in communities is not predicated on whether or not they are true.[105] There is, as Schulte puts it, no "negative or perjorative element . . . in Wittgenstein's way of using the word 'mythology.'"[106] Mythologies are meaningful – like linguistic use – if there is a place for them in the lives of humans. The Norse ritual practices concerning dragons governed significant parts of their lives, regardless of whether or not dragons actually existed in the 12th century in Northern Europe.[107] As such, Wittgenstein's explanation of world-pictures is intended to be neutral and descriptive only.[108] All that matters is that 'I have a world-picture. Is it true or false? Above all it is the substratum for all my enquiring and asserting (OC §162).

The understanding of the world-picture as neither true nor false and the basis on which we carry out all other judging is neatly summed up in a remark in which Wittgenstein refers to Lavoisier, although it could just as easily go for any scientist or even anyone carrying out any sort of empirical investigation:

> Think of chemical investigations. Lavoisier makes experiments with substances in his laboratory and now he concludes that this and that

[105] Indeed, this is the crux of Wittgenstein's criticisms of Frazer in *Remarks on Frazer's Golden Bough*. Frazer criticised the magical and ritualistic practices of primitive tribes as examples of 'bad science', untrue and therefore worthless. See Frazer (2003), pp. 48 and 711-712, and *RFGB*, *passim*, and in particular pp. 7, 12.
[106] Schulte (2007), p.63
[107] For the tales of Norse mythology and in particular of the powerful dragon Nidhogg, see Dronke (1997), especially the poem '*Völuspá'*.
[108] Cf. CV, p. 3: 'This method consists essentially in leaving the question of *truth* and asking about *sense* instead.' Also, PI, §124: 'Philosophy may in no way interfere with the actual use of language; it can in the end only describe it . . . [Philosophy} leaves everything as it is.'

> takes place when there is burning. He does not say that it might happen otherwise at another time. He has got hold of a definite world-picture—not of course one that he invented: he learned it as a child. I say world-picture and not hypothesis, because it is a matter-of-course foundation for his research and as such goes unmentioned (OC §167).

This passage helps draw together several threads at once. The world-picture goes unmentioned because trying to express the ways of acting that constitute it would be both pointless and absurd in their expression. It is distinguished from a hypothesis as it is ungrounded; it is what makes hypotheses possible by ensuring that we don't need to investigate everything, from the apparatus to our basic understandings of chemical reactions. It provides a consistent basis for judgement; Lavoisier need not fear that the reaction 'might happen otherwise at another time'.

Finally, Lavoisier has not invented this world-picture. If he had, the experiments he conducts might have no interest for another chemist who had invented his own world-picture too, and so would possess a different 'matter-of-course foundation' on which to judge any research. If another chemist, for example, had a different conception of what it is for something to burn, not only would his hypotheses be different from Lavoisier's, but the very basis on which he makes his judgements would be incompatible with Lavoisier's.[109] Because a world-picture is learned as a child:

> I did not get my picture of the world by satisfying myself of its correctness; nor do I have it because I am satisfied of its correctness. No: it is the inherited background against which I distinguish between true and false (OC §94).

[109] This example raises the notion of what Kuhn termed 'incommensurability' in relation to different scientific paradigms. Indeed, Kuhn himself makes use of Lavoisier in explaining his concept of a paradigm for scientists. See especially Kuhn (1970), pp. 53-60, although he appears frequently in *The Structure of Scientific Revolutions*. We will address the concept of a paradigm in Chapter 4, before a full investigation into incommensurability and its implications for world-picture conflict in Chapter 5.

So our world-picture, this network of certainties, is something we inherit as children. This is the sense in which Wittgenstein likens it to a mythology, as it is imparted by the community around us, for, 'From a child up I learned to judge like this. This is judging' (OC §128). Because it is not learned explicitly in propositional form, the child would probably not be able to describe the world-picture that makes up the substratum of all his enquiring, judging, and asserting. It is 'not that I could describe this system of convictions. Yet my convictions do form a system, a structure' (OC §102). The term world-picture is intended to depict this structure, as it forms 'the scaffolding of our thoughts' (OC §211).

There seems, at first, to be a conservatism running through the concept of the world-picture. The system made up of our certainties is something that structures all our processes of judging and investigating. It is also something that is handed down to us indirectly through all that we learn in childhood. 'In order to make a mistake, a man must already judge in conformity with mankind' (OC §156). Similarly, if we are to be in agreement on a proposition, our standards of judgement must be the same.

Even when the world-picture term is first introduced, problems for a modern reader immediately appear. Consider the example Wittgenstein provides about judging in accordance with mankind here:

> The propositions presenting what Moore '*knows'* are all of such a kind that it is difficult to imagine *why* anyone should believe the contrary. E.g. the proposition that Moore has spent his whole life in close proximity to the earth.—Once more I can speak of myself here instead of speaking of Moore. What could induce me to believe the opposite? Either a memory, or having been told.—Everything that I have seen or heard gives me the conviction that no man has ever been far from the earth. Nothing in my picture of the world speaks in favour of the opposite (OC §93).

Wittgenstein's picture of the world, which he has inherited, includes the certainty that not only 'has no man ever been far from the earth', but also that it is impossible.[110] Our picture of the world includes no such certainty. In fact, the comparable certainty in our Western, twenty-first-century world-picture declares precisely the opposite conviction. Yet, our world-picture is something we inherit. If Wittgenstein's generation held this conviction, how has it come to change? Furthermore, has it changed for everyone? Wittgenstein's riverbed metaphor investigates how changes to our world-picture – that is, changes in our certainties – are possible.

2.6.1 *The riverbed*

The riverbed metaphor is encapsulated in two fairly short remarks, at *On Certainty* §97 and §99. They are here rendered in full.

> §97 The mythology may change back into a state of flux, the river-bed of my thoughts may shift. But I distinguish between the movement of the waters on the river-bed and the shift of the bed itself; though there is not a sharp division of the one from the other.
>
> §99 And the bank of that river consists partly of hard rock, subject to no alteration or only to an imperceptible one, partly of sand, which now in one place now in another gets washed away or deposited.

There are two distinctions being made in §97 and §99. In §97, the distinction is between the riverbed and the waters, i.e., between certainties and empirical investigations.[111] The other, in §99, is between different degrees of hardness in the bed itself; some certainties are more deeply embedded and less prone to change than others. Our empirical investigations are subject to rapid change: updated statistics,

[110] Cf. Moore (1959a), pp. 33-34

[111] There is an argument to be made that the water indicates far more than our empirical investigations, and in fact could encompass all the sorts of activities listed in PI §23, and even more. For the sake of simplicity, I will here only distinguish between certainties and empirical investigations, as this is the distinction with which *On Certainty* is predominantly concerned.

fresh hypotheses, and ingenious new experiments to test those hypotheses. Certainties change gradually, in the way that the bed of a river shifts gradually over time, grain of sand by grain of sand. Some ways of acting last perhaps only a few centuries or even decades; others are deeper in the riverbed, and erosion might take thousands of years, if it happens at all.

The riverbed, according to Shiner, provides 'fixed points of reference in terms of which we are able to interpret what is not fixed,' in the same way that the shape of the riverbed determines where the waters above it may flow.[112] On the other hand, what may, at one time, function as a point of reference need not do so eternally, just as the route of a river shifts gradually over time. Although we do distinguish between the empirical propositions and the certainties that provide a framework for them, 'there is not a sharp division of the one from the other' (OC §97). Whilst, as Schulte notes, it is:

> quite possible to draw a general distinction between these different levels, a *sharp* distinction between rules etc. on one hand and empirical propositions on the other is just as impossible to make as a clear-cut division between the waters on the river-bed and the shift of the bed itself.[113]

The metaphor also illustrates how changes in a world-picture are incremental. The entire Western scientific world-picture – the one that encompassed Wittgenstein's certainty that space travel was impossible – did not change beyond recognition as soon as humans first achieved space flight. One certainty, or perhaps a handful, shifted, but the vast majority of our certainties – and therefore our world-picture – remained intact. Even radical changes to a few certainties might entail only small changes to the world-picture – that is, to the network of our ungrounded ways of

[112] Shiner (1974), p. 192. Shiner's article also draws comparisons between Wittgenstein's riverbed metaphor and Heraclitus' famous river image: 'Upon those who step into the same rivers different and again different waters flow.' Shiner concedes that he has no information available as to whether Wittgenstein was consciously echoing this remark of Heraclitus', but notes that it is largely irrelevant to his discussion. Regardless, it is an intriguing point of comparison, although beyond the remit of this thesis for a full investigation.
[113] Schulte (2007), p.64.

acting – as a whole. Nevertheless, over time, a world-picture may become unrecognisable from its own precursors, just as the flow of a river's waters over thousands of years can come to bear little relation to what was once its route.

The riverbed metaphor is compelling, and prevents, on Wittgenstein's account, our inherited world-picture from being eternally fixed. It would be an unsatisfying account if it could not explain how it is that our world-picture differs so greatly from, say, that of the Ancient Greeks. However, if our inherited world-picture can change in this manner, we are presented with other concerns. Notably, the riverbed metaphor raises the prospect of alternative world-pictures. At the moment, the discussion has only raised the prospect of gradual changes to a single world-picture. Wittgenstein claims that his world-picture prevents him from taking space travel seriously. Had he lived another twenty years, his world-picture would undoubtedly have changed. In the interim, there were people, perhaps at one point in roughly equal numbers, with mutually exclusive certainties regarding space travel. Their world-pictures would have been different from one another. Two principle questions emerge: a) what is the nature of the process that resulted in a change in world-picture for each individual, for the change did not happen universally and simultaneously, and b) how was communication affected between those of Wittgenstein's conviction and those who deemed space travel possible?

To begin the process of answering these questions – those of communication and conversion, the key concerns of this thesis – Chapter 4 will introduce the philosopher of science Thomas Kuhn's *The Structure of Scientific Revolutions*. Recent scholarship is very much aware that Wittgenstein influenced Kuhn, and that there are links to be made between the work of the two. I will explore these established links, but only briefly. More interesting, for our purposes, and currently unexplored in the literature to my knowledge, is the extent to which Kuhn's work can provide a template for our understanding of what it is for two world-pictures to come into contact and conflict. Chapter 4 will first establish some aspects Kuhn and Wittgenstein share in their methodology, in particular Wittgenstein's concept of perspicuous representation (covered in §1.4.1). The discussion will then proceed to an examination of the importance of rules in Kuhn's conception of the history and progress of science. The last but most substantial section will cover the links between Kuhn and *On Certainty*,

paving the way for a discussion in Chapter 5 of Kuhn's concept of incommensurability and how it will be a useful tool in examining world-picture conflict and communication. Before this process can begin, Chapter 3 will examine a final point of purely Wittgensteinian exegesis, regarding the similarities and distinctions between the terms 'form of life' and 'world-picture'.

Conclusions

This chapter has established a basic interpretation of *On Certainty*. Taking Moore's two papers as a starting point, Wittgenstein noted that the Moorean propositions had a unique role to play in our lives, but took issue with Moore's claims to know them. In drawing a distinction between knowledge and certainty, Wittgenstein describes the Moorean propositions as certainties.

We learn certainties indirectly and demonstrate our certainty of them in our actions. We could not justify them in the manner of ordinary empirical propositions, because a) we never learned them explicitly, and b) whilst they may have propositional counterparts in exceptional circumstances, their role is not propositional. They are neither true nor false, but instead provide us with a framework, within which ascriptions of true or false can be made to empirical propositions. As such, they are rules, providing the description of the logic of our language-games. Attempting either to affirm or deny them in propositional form, as Stroll's concept of negational absurdity shows, leads to a form of nonsense, whereby the speaker is presumed either to be deluded or to be making a joke.

In describing certainties as hinges, Wittgenstein draws attention to the relative immobility of our certainties in relation to our frequently shifting practices of enquiring and asserting. We simply cannot investigate everything, and so the hinges stay in place whilst the tumult of hypotheses and investigations takes place within the scaffolding of certainties. The acceptance of hinges is not like resting content with an assumption or being thoroughly persuaded of them. Choice, and therefore the weighing of evidence for or against, has no place in our acquisition of hinges. We acquire them as children, as part of our inherited background, like a mythology. We do not learn that there are objects in the world, but rather we learn to interact with those objects.

Moyal-Sharrock's and Stroll's views, whilst slightly different, agree that Wittgenstein debated with himself in *On Certainty* whether hinges are propositional or non-propositional. I rejected this aspect of both of their interpretations, claiming instead that Wittgenstein always regarded hinges as having only a non-propositional role. The

confusion we see in the text is a symptom of hinges' propositional counterparts: situations in which expressions that might, in another context, be a clumsy attempt at putting a hinge into words do sometimes appear in identical form in contexts in which their expression as a straightforward empirical proposition has a role.

Our certainties make up our world-picture. A world-picture is neither true nor false, being made up of a collection of ungrounded ways of acting, which are neither true nor false themselves. Our world-picture provides a frame of reference; a system or structure within which all other activities can take place. Over time, as the riverbed metaphor illustrates, some certainties might shift, resulting in incremental changes to the overall world-picture. Chapter 2 closed by presenting some future questions. If world-pictures can change in the manner described in the riverbed metaphor, to what extent are people from different world-pictures who come into contact rightfully regarded by each other as talking nonsense, i.e. deluded or making a joke? Chapter 4 will begin the process of answering questions like these – the task for the rest of the thesis – by drawing comparisons between Wittgenstein and Kuhn.

Chapter 3 – The form of life and the world-picture

3.1 An intermediary link: language-games

The term form of life was introduced in §1.5.6 as something to which we can point when our justifications run out and we have 'reached bedrock', where we are 'inclined to say: "This is simply what I do"' (PI §217). In *Philosophical Investigations*, the concept mutually supports that of the language-game. Even to 'imagine a language means to imagine a life-form' (PI §19), for it indicates a network of customs within which linguistic activity takes place and derives its meaning.

On Certainty, on the other hand, features just one – very debatable – reference to the term form of life.[114] Yet there are similarities between the form-of-life concept and that of certainties; or, perhaps more accurately, between the form-of-life concept and the world-picture constituted by certainties, as explored in §2.3. That section investigated uses of the concept of certainty in *Philosophical Investigations* and related them to the way it is used in *On Certainty*, indicating a point at which further justification is impossible and doubt and mistake become meaningless. Clearly there

[114] The one exception appears at OC §358, but, for good reasons discussed later in this chapter in §3.4, it should be discounted. Wittgenstein himself explicitly states concerns about his use of it in the passage in question.

are similarities between the two concepts, but it is also significant that form of life does not appear as a term at all in *On Certainty*, and certainty or certainties only infrequently in *Philosophical Investigations*. Developing the connection between forms of life and certainties further, then, will require an intermediary conceptual link. Language-games are a feature of both *Philosophical Investigations* and *On Certainty*.

This chapter will begin by developing the connections between the form of life and certainties with reference to the way that both underpin linguistic use. The latter stages of this chapter will investigate the ways in which the form of life and the world-picture are not equivalent, proposing what I term the breadth-depth distinction. The form of life indicates the breadth of practices; how widespread they are, who engages in them, and their role across a community. The certainties comprising the world-picture, conversely, indicate depth in a person's life in the sense that they provide and structure our standards for judging and asserting. Whereas the form of life indicates traditions and customs that can be gained or lost with no great effect, certainties are ways of acting that are so deeply rooted that to doubt one plunges everything into chaos (OC 613) and to change one has radical consequences for one's life.

Together, the form of life and the world-picture form an axis of breadth and depth. The tendency in Wittgensteinian scholarship has been to speak of one and not the other, depending on whether *Philosophical Investigations* or *On Certainty* is the primary concern, as if the world-picture displaced the form of life in Wittgenstein's thought. Stroll (1994), for instance, despite providing an incisive and wide-ranging commentary on *On Certainty*, makes no mention of the form of life whatsoever. Moyal-Sharrock (2007), also primarily concerned with *On Certainty*, does make frequent reference to the form of life, but only in a very limited sense to indicate a human form of life as opposed to a non-human form of life.[115] This in turn is essential to her support for the idea of universal certainties within a grander taxonomy of certainties that she proposes; a position we will reject in §6.4. For now, though, in order to construct the breadth-depth axis constituted by the form of life and the world-

[115] §3.4.1 will examine the two senses of form of life in *Philosophical Investigations*, of which Moyal-Sharrock's preference is the more limited, less interesting version.

picture, we must first look at the ways the concepts are related in order to justify our eventual yoking them together.

3.2 'This is simply what I do'

3.2.1 *Philosophical Investigations*

The opening passages of *Philosophical Investigations* inform us that any sort of linguistic practice in which humans engage, any language-game, is 'part of . . . a life-form' (PI, §23). Even to 'imagine a language means to imagine a life-form' (PI §19). When pressed for a justification for our conviction that we are following a rule, or for behaving in a particular way, Wittgenstein exhorts us to recognise when our 'spade is turned' (PI §217). The response suggested is variously expressed as 'This is simply what I do' and – said with emphasis in the original – '*this language-game is played*' (PI §§217, 654). These two responses may, on the surface, appear different from one another. The first appears to point to an action specific to the question directed at whoever responds with this expression, whereas the second seems to point to something less precise. However, unpacking the concept of the language-game brings the expressions closer together. The very 'term *language-game* is meant to bring into prominence the fact that the *speaking* of a language is part of an activity, or of a life-form' (PI §23).

We ought to distinguish here between a linguistic action and any other sort of action. It would be odd if, when questioned why I kiss the photo of a loved one when they are absent, to point to a language-game, that is, a set of linguistic practices, and say '*this language-game is played*.'[116] It is not a linguistic action that is under scrutiny here, but a non-linguistic one. Responding instead with 'This is simply what I do' would be more appropriate, provided we are satisfied that Wittgenstein is right in thinking that explaining or justifying certain practices is futile. But if I were to be asked why at school we called lined paper for writing notes in class 'block', pointing to any action – or even the action of calling lined paper 'block' itself – might be confusing, whereas saying instead '*this language-game is played*' makes far more sense. It suggests a wealth of linguistic practice, the esoteric and semi-secretive sort often practiced by schoolchildren, which only makes sense in the form of life we would recognise as inhering in a school environment. The argot might differ from school to school, but the

[116] For this example, see RFGB, p. 4.

concept of small communities, each with their own terms and uses for words providing meanings that might make little sense to those not of that community, would be familiar.

If a little generosity of interpretation is permitted for each of the apparently disparate expressions – fusing their meanings somewhat – the dissimilarities seem not so stark. If, when an action of ours is questioned, Wittgenstein suggests we say 'This is simply what I do,' we might add to the end of that sentence 'in this community.' Broadening the scope of the response, placing it as an action amidst a network of other actions and customs, sharpens the import of the expression. It suggests that seeking further justification is pointless. I kiss the photo of a loved one not for any explicit reason I can articulate, but because it is simply what one sometimes does when one misses someone and has a photograph of them near to hand. It is what we do in this community; it is part of our form of life.

Similarly, applying the reverse procedure to '*this language-game is played*' sharpens that expression, too. If, when asked why they call their lined paper 'block', the schoolboy might – with a little Wittgensteinian education – respond '*when this language-game is played we call it block*'. Further justification is, again, pointless, but rather than broadening the scope of Wittgenstein's original suggestion, we have narrowed it, to focus on the particular confusion in question. The focus is drawn to a linguistic custom placed in the nexus of other linguistic customs, all of which take place in the context of a given community.

Nothing substantial has been added to either expression, and the context in which these expressions might be used would probably render the additions superfluous. But here, where the context is not so readily apparent, the additions serve to bring out what the context would otherwise provide. Once this is done, the expressions function in very similar ways. Both seek to situate an action – one linguistic, the other non-linguistic – in the context of a community's wider practices. In the 'block' example, this makes sense of one of the few explicit references to forms of life in *Philosophical Investigations*: to 'imagine a language means to imagine a life-form [form of life]' (PI §19). The language-game, and the rules and practice contained therein, make sense only against the backdrop of a form of life.

A further purpose is served by drawing these expressions closer together. If the response to a request for justification for an action – whether linguistic or non-linguistic, calling lined paper 'block' or kissing a photo – is the same, then non-linguistic actions also depend upon placing them in a form of life if we are to make sense of them. The term language-game restricts our attention to the linguistic practices of communities, which only make sense within the respective forms of life of those communities. Our non-linguistic practices also only make sense within a form of life. Anything from kissing a photo to driving on the left or shaking hands depends on a form of life if they are not to seem utterly bizarre. Certainties underpin various ways of acting. They, too, on the one hand make sense only within a form of life, but they are on the other quite different from, say, driving on the left or shaking hands; they are more fundamental to our lives. Whereas kissing a photo, driving on the left, or shaking hands are a part only of some forms of life – in others one might touch a photo, drive on the right, and bow as a greeting – the examples Wittgenstein gives in *Philosophical Investigations* of things we are certain about seem to be much more universal.

3.2.2 *On Certainty*

The certainties to which Wittgenstein draws attention in *Philosophical Investigations* do not seem as if they would vary across communities in the way that language-games do. The certainties that the book will fall if one drops it (PI §324) and that the fire can injure a living human body (PI §474) are unlikely to be held – or, rather, practiced – by one community and incomprehensible to another.[117] Yet this does not make the comparison between language-games and non-linguistic-games invalid. The examples of certainties Wittgenstein uses in *Philosophical Investigations* are, indeed, probably near universal, at least contingently. By the time of *On Certainty*, however, the examples present certainties that are often radically different from one group of people

[117] Q.v. §2.3.2. As we will see in §6.5, however, this does not mean that any certainties are universal or necessary, as Moyal-Sharrock and Stroll have argued.

to another.[118] The previous chapter introduced the possibility of such cases with reference to the riverbed metaphor of OC §§97-99. The best example – and one which will feature repeatedly in this thesis – is that of Moore meeting a king who has been brought up to believe that the world began with him[119]:

> Men have believed that they could make the rain; why should not a king be brought up in the belief that the world began with him? And if [G.E.] Moore and this king were to meet and discuss, could Moore really prove his belief to be the right one? I do not say that Moore could not convert the king to his view, but it would be a conversion of a special kind; the king would be brought to look at the world in a different way. Remember that one is sometimes convinced of the correctness of a view by its simplicity or symmetry, i.e., these are what induce one to go over to this point of view. One then simply says something like: "That's how it must be." (OC §92)

Whilst Moore and the king probably shared certainties about gravity and the damaging effect of fire, others were radically different. They possess different world-pictures. Communication between the two would be rendered difficult unless one party was converted and could 'be brought to look at the world in a different way' (OC §92). The language-games of Moore's would be familiar enough to people like us. The language-games of the king's would have incorporated uses of terms – presuming for now that they both spoke English – utterly alien to us. For example, uses of terms idiosyncratic to the community of that kingdom like 'parents', 'geology', 'history', 'weather', and so on. The language-games in which those terms are used in such a way could only make sense against the backdrop of the king's world-picture. The king's conviction that the world began with him has never been proven to him, and Moore could not provide a proof that would shake this certainty. Any conversion would be one of 'a special kind,' whereby he would be brought to look at the world in a

[118] We will consider an opposing point of view to this reading in §6.6, when we look at Coliva (2010) and her claims that there are no alternative world-pictures.
[119] We will use this example frequently in this and later chapters. To avoid creating unnecessary extra examples, we will henceforth take this example to present a king who holds both that the world began with him and that he can make it rain.

different way, perhaps 'convinced of the correctness of [the] view by its simplicity or symmetry' (OC §92).

We can envisage, roughly, what the language-games in that community might be like, where certain incompatibilities with our own might lie, how particular terms might function given their peculiar usage. In *On Certainty*, these differences are put down to differences in certainties, or, as a conglomeration of them, the world-picture. But if *On Certainty* is to be compatible with *Philosophical Investigations*, then the claim in *Philosophical Investigations* must still stand: to 'imagine a language means to imagine a life-form' (PI §19). And where the king's subjects are in agreement with the king and disagreement with Moore about what is true or false, about the origins of the Earth, how rain is made, '[t]hat is not agreement in opinions but in form of life,' for it is only 'what humans *say* that is true or false; and they agree in the *language* they use' (PI §241).

On the surface, the form of life and the world-picture have a lot in common. It seems that they may both be invoked in similar situations, in much the same manner, to indicate a point at which justification for a particular linguistic or non-linguistic action can go no further. Both terms provide the possibility of pointing to something beyond one's own behaviour, something that is as brute a fact as any available when asked for justification for our practices, and saying 'Look, this is how things are done around here.' If asked why he acts as if he can make it rain, the king could, on the one hand, point to his community of subjects, the form of life that surrounds him, and tell Moore to note how they submit to him and ask for him to make it rain. Similarly, invoking something like a certainty, the king could simply tell Moore that everything he has experienced, all the education and background he inherited, informs him that he can make it rain. This process might be indirect, in the sense that he does not learn it explicitly, but due to the fact that he was taught a particular rain-making ceremony that only he was allowed to perform, or other similar rituals. That is to say, he learnt it as the axis at the centre of a network of other practices.[120]

[120] Cf. OC §152.

It would appear that the form of life and the world-picture serve much the same function, in the sense that both indicate a point at which reasons give out, a point at which one says ‘This is simply what I do.’ However there are crucial differences in the terminology that may not be so readily apparent. We will argue that a proper separation of the two terms is essential to a thorough understanding of the world-picture. Once properly separated, the two concepts can be used in conjunction with one another, mutually supportive, as part of the same axis.

3.3 Form of life to world-picture: development of the thought

In §3.2, emphasis was placed on the way we can draw upon either our form of life or our world-picture to indicate that no further justification for the way we act is available. If one side questions the other, and the response draws upon either the form of life or the world-picture to indicate that rational grounds for argumentation and persuasion have given out, then this is a disagreement unlike an ordinary empirical disagreement. Whilst the focus in Chapter 2 was on the role this type of situation plays in our understanding of *On Certainty*, it in fact has its origins earlier in Wittgenstein's thought. Exploring this line of enquiry provides the starting point for differentiating the form of life from the world-picture.

The idea that certain types of disagreement about seemingly empirical statements are not ordinary disagreements at all but something more fundamental is a recurring theme in the later Wittgenstein. In the *Remarks on Frazer's Golden Bough*, Wittgenstein describes Frazer's mistake as characterising past cultures' actions as bad science and error-strewn thinking about the causal effects of their actions. Wittgenstein's response is that these people did not hold that their actions, which we call magic or ritual, really had the causal effects Frazer was so keen to point out were impossible. Those rituals were simply part of their form of life. 'The characteristic feature of primitive man,' Wittgenstein suggests, 'is that he does not act from *opinions* he holds about things (as Frazer thinks).'[121] In the *Lectures and Conversations on Aesthetics, Psychology and Religious Belief* there is the example of Wittgenstein's refusal to say that he straightforwardly disagrees with a man who believes in the Last Judgement even though he, Wittgenstein, does not.[122] In *Philosophical Investigations*, Wittgenstein remarks that 'What people accept as a justification shows how they think and live' (PI §325), as well as insisting that we 'Ask, not: "What goes on in us when we are certain that . . . . ?"— but: How is "the certainty that this is the case" manifested in human action?' (PI, p. 191). *On Certainty* §92 suggests that if Moore and the king were to meet, these aspects of the king's view of the world such as his rain-making abilities or

[121] RFGB, p. 12. It is interesting that the rest of this passage details an example Wittgenstein found in Frazer's *Golden Bough*, featuring a rain-making king to whom the people only prayed '*when the rainy season comes*' Frazer (1923), p. 77. This is perhaps the origin of the example Wittgenstein uses at OC §241.
[122] LC, p.53. This example will receive detailed attention in §5.2.

that the earth began with him are not points subject to a rational argument with which Moore could change the king's mind. If a change were to happen, it would be a conversion, akin to a religious one. The king's world-picture would change as particular certainties changed, and his whole way of living would change too. We can imagine that, were the king to be converted in this manner, his language-games would have to change accordingly, for his old concepts and uses of terms like history, ancestry, and meteorology would no longer fit in his post-conversion world-picture.

This roughly chronological tracing of a strand of Wittgenstein's thought reveals a shift in his preferred terminology.[123] Consistent throughout is the emphasis on a contrast between objects of knowledge – about which it makes sense to speak of empirical propositions and justifications, evidence, and verification – and certainties or ways or acting that are not based on opinions and not subject to those activities we might call providing a proof. Between the *Remarks* and *On Certainty* – respectively the earliest and latest writings of this selection – there is no significant difference in the way the examples of these sorts of certainties are described. Wittgenstein does not change his mind on the things he takes to be certain and different from empirical knowledge. For instance, the certainty that one can continue a mathematical series and that a dropped book will fall (PI §324), that one's hand will be burnt if placed in the fire (PI §474), that there are physical objects (OC §34), and so on. However, *Philosophical Investigations* introduces the term form of life. Linguistic and non-linguistic activities make sense only against the backdrop of a form of life. Although the term is only introduced in *Philosophical Investigations*, around 1945, it could retrospectively be applied to the examples of the primitive cultures discussed in the *Remarks* and the religious examples of *Lectures on Religious Belief*, particularly the Last Judgement example (LC, p. 53).

In *On Certainty*, form of life appears only once, and world-picture is used, but with a slightly different emphasis. In *Philosophical Investigations*, the examples of

[123] The dates of writing – as opposed to discovery or publication – of these texts is, roughly, as follows: Part I of *RFGB*, 1931; the lectures on religious belief, 1938; *Philosophical Investigations Part I*, by 1945; *Philosophical Investigations Part II*, 1947-1949; On *Certainty*, 1949-1951. All of these dates are taken from the approximations of editors and translators in the prefaces and introductions of the respective publications from the same editions as those listed in the bibliography.

certainties – gravity, the dangerousness of fire, basic arithmetic and mathematics – are widespread, almost universal. As the examples are developed throughout the later work, there develops an awareness that there are other types of certainties – for example those of different primitive tribes in the *Remarks* – that might differ from culture to culture. By the *Lectures on Aesthetics, Psychology and Religious Belief*, examples introduce the idea of people living in broadly the same community with a mostly unified form of life who might still differ in their respective religious certainties. Finally, in *On Certainty* the concept of the certainty is more nuanced, with detail on how certainties might change (OC §§97-99) and the effects conversions might have (OC §§92, 612).

The core difference, §3.4 will argue, is that the form of life places greater emphasis on breadth – the size and nature of the community in question – of a practice or network of practices. Certainties and the world-picture emphasise instead the depth of practices in people's lives, the role they play, how deeply they are embedded, and the manner in which the deeper practices structure those nearer the surface of the riverbed or in the waters of the river itself. As we will see, different world-pictures can be present in the same form of life.

3.4 Distinctions between world-picture and form of life: depth and breadth

The form of life is a broader concept than that of the world-picture. It encompasses the entire network of practices of a community. The world-picture as described in *On Certainty* is specific to certainties, although certainties are not sharply delineated from subjects and practices suitable for empirical (or other) investigations. Nonetheless, when Wittgenstein uses the term world-picture, he does so only to refer to that which is 'the substratum of all my enquiring and asserting', rejecting the question as to whether a world-picture is 'true or false' (OC §162). Although when we try to isolate specific certainties it might be difficult to distinguish between the hard rock and the movement of the waters, at least in principle the hard rock does not include things which do not form the substratum of all – or at least some of – my enquiring and asserting.

Form of life encompasses all the customary practices of a community: every ritual, tradition, ceremony, convention, institution, myth, superstition, and piece of folklore. The term can do this because it is left so vaguely defined in *Philosophical Investigations*. The world-picture encompasses only the underlying, enacted certainties, for certainties are all that comprise a world-picture. Certainties are not traditions or myths or conventions; certainties are that upon which all such features of life depend. Where there is a tradition of ancestor-worship, there is a certainty underlying that tradition that the earth is very old, at least older than the king whom Moore encounters would have it. But the tradition and the certainty – and therefore the form of life and the world-picture – are not interchangeable terms.

There is one potentially confusing passage in *On Certainty*, which appears to contradict this distinction and equates certainties with a form of life:

> Now I would like to regard this certainty, not as something akin to hastiness or superficiality, but as a form of life. (That is very badly expressed and probably badly thought as well.) (OC §358)

Two features of this passage suggest that we should be cautious about taking it at face value. First, that it is the only instance of form of life throughout *On Certainty*. As a

text compiled from notes after Wittgenstein's death, we are already on guard for repetitions and poor formulations. That this idea is not developed further, and Wittgenstein questions both the thought and its expression within the passage itself, indicates that he was trying something out which, ultimately, didn't work.

Further, I agree with Moyal-Sharrock, who, pointing to the following passage –

> But that just means I want to conceive it as something that lies beyond being justified or unjustified; as it were, as something animal. (OC §359)

– suggests that what 'Wittgenstein has been attempting to say is *not* that objective certainty is a form of life, but that it is akin to something nonpropositional, such as a form of life.'[124] It would, therefore, be a mistake to fail to note the different roles the two concepts play based on this one passage; a passage which Wittgenstein himself criticised at or around the time of writing it. Provided this small concern may be set aside, the distinction between form of life and certainty may continue, but still requires further elaboration. Certainties have already been described as part of the riverbed, and their depth referred to. However, it is not yet clear how this contrasts with features of a form of life. Some illustrative examples will help clarify this aspect of the distinction.

3.4.1 *The two versions of form of life*

Various customs are a feature of every community: for example, in England, eating goose or turkey on Christmas Day with family and listening to the Queen's speech afterwards. Whilst this is a recognisable feature of the English form of life – and if asked to justify why we do it, pointing to something like the 'English form of life' would probably do – it would be odd to describe this as a certainty. Nothing else seems to depend on it. It does not provide standards for proof, justification, verification, or generally what counts as true or false for anything else. It can be

[124] Moyal-Sharrock (2007), p. 98.

spoken of freely with no danger of negational or assertoric absurdity, in the way that certainties were characterised earlier.

Necessary and sufficient conditions cannot be drawn up for certainties, and so this particular tradition cannot be discounted as a certainty on the basis that it does not fulfil such conditions. Yet, it does not play the fundamental role in our lives we would expect of a certainty. Were we to include it as one we might also have to include other, similar, relatively unimportant but widespread traditions that would also seem strange if described as certainties, even though they are clearly a part of a particular community's form of life. Such traditions, we might say, lack the depth of a certainty in terms of the role they play in our lives. Conversely, we can say of the traditions and customs we associate with a form of life that they are shallower than certainties. That still leaves the question of what, on that higher, shallower strata, is being distinguished between when we delineate one form of life from another.

There are two discernable ways, in this regard, that the form-of-life concept is deployed in *Philosophical Investigations*. Wittgenstein described the form of life as 'complicated' in a passage in which the 'phenomena of hope' is being discussed (PI, p. 148). Drawing distinctions between emotions we might ascribe to an animal and ones we might ascribe to a human, he suggests that it only makes sense to make these ascriptions to beings with a certain form of life – i.e., in this case, human life – just as 'if a concept refers to a character of human handwriting, it has no application to beings that do not write' (PI, p. 148). The practice of hoping is not a feature of non-human life. Gertrude Conway marks this particular usage as one of two ways in which Wittgenstein uses the term. This broader use effectively marks humans off from other animals, covering 'basic patterns of behaviour that come naturally to human persons.'[125] Humans alone 'speak, hope, question, grieve, fear, build, remember, play, and so on.'[126] There might be some animals which engage in something resembling one or more of these activities, but, taken as a group – and we can imagine many other actions we might include – the amalgamation is something recognisably and distinctively human. The broader conception of form of life, distinguishing the human

[125] Conway, G (1989), p. 60.
[126] *Ibid*.

from the non-human, is present in Wittgenstein's thought, but is largely trivial, and will not be investigated further here.

However, the form-of-life concept is not used only to differentiate human from non-human forms of life. If we are correct in taking the *Remarks* as providing prototypical examples of what Wittgenstein takes to be different forms of life, then distinctions are also being drawn between different human forms of life. Conway, too, thinks that this narrower conception of the term tends towards depicting differences of culture, perhaps eventually narrowing so far as to include distinctions such as those of 'race, class, and gender', as Duncan Richter suggests.[127] It is the narrower conception that interests us here, and a promising way of exploring it will be to contrast what is to acquire or lose features of a form of life with what it is to acquire or lose certainties. However, for now, it will be more useful to focus not quite so narrowly – Richter's distinctions suggest divisions within what we might normally term a single culture (e.g., that of the English) – and seek differences chronological and geographical instead. Subdivision to the extent proposed by Richter – and indeed somewhat further – will be addressed in Chapter 6, but with emphasis placed on the world-picture rather than the form of life.

3.4.2 *Acquiring and losing features of a form of life; acquiring and losing certainties*

In the *Remarks on Frazer's Golden Bough*, Wittgenstein criticises Frazer's inability to see beyond his own form of life, one in which he 'cannot imagine a priest who is not basically an English parson of our times with all his stupidity and feebleness' (RFGB, p. 5). He makes this criticism in light of Frazer's failure to understand the pre-Roman tribe at Nemi's form of life – which incorporates the killing of the priest-king as part of the process of succession – on its own terms. Wittgenstein also mentions: the Beltane fire-festival custom practiced in Perthshire up until the eighteenth century; practices whereby an adopted child is pushed through the clothes of the mother in a pseudo-birth; burning in effigy or kissing the photo of a loved one.[128] All of these customs have roles to play in the forms of life of one or more cultures. The variety of

[127] Richter (2004), p. 98.
[128] RFGB, pp. 13-19, 4, and 4.

practices and forms of life is almost endless. ‘One could well imagine primitive practices oneself,’ says Wittgenstein, ‘and it would only be by chance if they were not actually to be found somewhere’ (RFGB, p. 5). The two practices of the last example – burning in effigy and kissing a photo – still take place in various parts of the world.

Given Frazer’s description of the practices of other past cultures as being examples of bad science, we might expect him to attribute the British practice of burning an effigy of Guy Fawkes on bonfire night, November 5th, each year as wrongful thinking about causation, perhaps as a misguided effort to physically protect the Palace of Westminster from coming to harm. Wittgenstein’s response in an effort to make sense of this annual ritual would be to place the practice within the context of the form of life that supports it, even if the original reasons for burning the effigy have been largely forgotten.

We must consider this as part of the English form of life, because even an annual festival like Guy Fawkes (or Bonfire) Night, with all its concomitant traditions of fireworks, bonfires, burned effigies, and communal gatherings, cannot be regarded as a certainty. We might be sure that we will celebrate it this year, as we have every other year, and about the correct date and manner on and in which it ought to be celebrated. But that is nothing like the certainty that if I drop the book then it will fall or that if I put my hand in the fire it will be burned. Guy Fawkes Night could disappear as a practice universally and instantaneously from our form of life and nothing – except the night itself and perhaps the sales of fireworks and tinder – would change. The same could not be said if the whole community suddenly lost their certainty about the earth being very old or the influence of gravity.

We might also consider the loss of a tradition as compared to loss of a certainty in the case of one individual, rather than as a whole community. If one person forgets or chooses not to engage in a feature or tradition of a form of life like Guy Fawkes Night, there are no serious ramifications. Other members of the community might cajole, bully, or threaten that person in order to persuade them to re-engage in the traditional practice. As nothing in the substratum of enquiring and asserting of the Guy-Fawkes-Night apostate has changed, that process, whether successful or not, is a straightforward one. However, were someone to cease to be certain of gravity – and

this would be revealed in his actions – we would regard him as mad or deluded. Rational argumentation would get us nowhere in bringing him round, as already for this person 'everything speaks in its favour, nothing against it' (OC §4). This person requires medical attention: psychotherapy or an antidote to the hallucination-inducing drug he has ingested. One can weigh up the benefits of different features of a form of life and rationally choose which to engage in, but one either inherits or is converted to particular certainties and an overall world-picture.

Examining the ways in which language-games might change upon the loss or acquisition of a certainty or a feature of a form of life is a useful method for furthering the distinction between the world-picture and the form of life on the basis of depth. Our everyday language – about gravity in particular, but also about a range of other things – would no longer make sense to this man who has lost the certainty of gravity in his actions. Even as early as *Philosophical Investigations*, Wittgenstein recognises that 'The kind of certainty is the kind of language-game' (PI, p. 191). If a certainty for an individual changes or is lost, his language-games change too. Some aspects of his new language use will be incompatible both with his own old linguistic practice and with that of those who have not suffered the same delusion as him.[129] The change in certainty need not be a delusion or hallucination; we have already seen how adopting new religious certainties can have similar effects, or how the king, were he to be converted by Moore, would find problems in conversing with his former subjects. Acquiring and losing features of a form of life entails a different process and difference consequences from acquiring or losing certainties.

3.4.3 *Concluding the distinction between the world-picture and the form of life*

The distinction has been made between the world-picture and the form of life based on the crucial role certainties play in comprising a world-picture. If a certainty changes for a particular person, whole swathes of her most basic actions as well as her

[129] This sort of incompatibility between his old and his new world-picture following a change of certainty will in Chapter 5 be described as a situation where incommensurability pertains, following an exploration of Kuhn's *The Structure of Scientific Revolutions* in Chapter 4. Cases of delusion or medical disorders resulting in alternative word-pictures will also be addressed in §7.3.2.

language use changes. On the other hand, if a component of a form of life such as a particular tradition changes for that same person, there are not the same ramifications. Her language use is not radically altered or hard to understand to others with whom she could previously communicate easily, and her behaviour is unlikely to seem absurd or creating a need for medical help. For a form of life to change, a tradition or custom must be altered across a whole – or significant portion of – a community. A world-picture, however, can change for an individual. An individual can undergo a world-picture conversion, and can 'be brought to look at the world in a different way' (OC §92).

One cannot be converted to a form of life in the manner of a *gestalt* switch, because the term encompasses a loose amalgamation of practices. These practices are of insufficient depth to constitute – if we were to change them – anything like a *gestalt* switch. The schoolboy who learns the new slang of a school, and perhaps some other traditions of the community which he has not previously engaged in, can assimilate into the new form of life in which he finds himself without having his perspective of the world – the scaffolding of his thoughts – radically altered. His behaviour might change in accordance with the practices of his new community, but not in a fundamental, unrecognisable way. He still goes home and converses with his family as usual, and even teaching them the new slang he has picked up at school is a trivial, familiar, undaunting activity, one for which no conversion or *gestalt* switch is required. The king, on the other hand, in undergoing a world-picture conversion at Moore's persuasion, has undergone a radical transformation in how he sees the world. But the form of life he has now left behind – for he could not continue acting as he used to in all sorts of respects – has been left unchanged. Perhaps the people will choose one of the previous king's descendents as their new king, but their form of life – and petitioning of the king to make the rain – remains intact.[130]

[130] That is not to say that forms of life are immutable. They do, of course, change too. The king's conversion to a Moorean, (i.e. Western, scientific) world-picture might eventually cause the subjects of his kingdom to radically change their way of life, but that is due to his role as the figurehead of the community. Were an ordinary subject of the king's to undergo a conversion at Moore's hands, there is no reason to think that the form of life of which he was originally a part would undergo any significant changes.

The chronological development of the terms form of life and world-picture described earlier are helpful here. Form of life encapsulates all practices of a community, although the boundaries of the practices to be included in a given form of life will blur, as the boundaries of communities are rarely precisely distinct.[131] Wittgenstein gestures in the *Remarks* towards some practices raised by Frazer as being of great importance to certain communities' forms of life. However, it is not until the concepts of the world-picture and the certainty in *On Certainty* that recognition is given to the scaffolding role that some practices or ways of acting play in the lives of different communities (OC §211). The form-of-life terminology is mostly blind to the differing role of practices, and simply says: 'These things happen'. The terminology of the world-picture and certainty, on the other hand, is highly conscious of what acts as a substratum (OC §162); how some seemingly empirical propositions become calcified into the riverbed (OC §97-99), and what it takes for that sediment to be dredged up and investigated on empirical terms once more (OC §97). The form of life is still present, implicitly, as a concept in *On Certainty*, but the contours of the topography have now been mapped, rather than seeking a perspicuous representation of unvariegated terrain.

The contours in question are to do with depth. In the example of lined paper being called 'block', whilst unquestionably the case when I was at school, that particular jargon, like all slang, is apt to change. If that particular use has not disappeared by now, it would be surprising had it not in a few decades' time. In terms of the role it played in our lives, it was not a deep, foundational one, any more than any slang ever is. Guy Fawkes Night is a relatively long-standing tradition, but even so it is only just over four hundred years old. Just as we practice few traditions now that were present eight hundred years ago, it would be surprising if Guy Fawkes Night is still celebrated four hundred years from now, at least in relation to what will by then perhaps seem an insignificant episode of history, rightly forgotten or at least absent from any November 5th festivities involving fireworks.

If questioned by an outsider to our community about either of these practices, it would make sense to point to our community, its practices and traditions, and say 'this is

[131] Cf. BB, p. 19

simply what we do.' In the Guy Fawkes Night example, we might supply a bit of the historical background, even though the original cause of the celebration has been largely forgotten. Not that that diminishes the effect of pointing to the form of life that contains these practices, any more than noting that our purpose in shaking hands as a greeting is no longer that of displaying the fact that we are unarmed and not dangerous. Neither of these practices – Guy Fawkes or shaking hands – runs particularly deep in our lives. Certainties, though, are part of the riverbed: calcified, subject to change only rarely, and, when so, with dramatic consequences. Were someone to ask us why we hold things carefully as if we expect them to fall, we would be baffled. Pointing to a communal custom of responding to gravity is not as straightforward as indicating an annual cultural tradition or piece of localised slang. Whatever we try to say in defence of our gravity-based actions will sound strange, even to us.

Learning a new tradition or custom is fairly easy. On moving to a new school, small pieces of slang can be picked up within a couple of days. If someone immigrates to England in early November, by late December Guy Fawkes Night and Christmas Day celebrations and traditions will not seem overly mysterious. Forms of life can be adopted or left behind, amended or forgotten in a short space of time and with relative ease. Certainties are embedded far deeper in a person's life. A change is usually cataclysmic – like a religious conversion – and hard to effect. Customs and traditions make up a form of life; certainties comprise a world-picture. The ingredients in each case differ, as we have seen above, and so the end results – the form of life and the world-picture – differ from one another correspondingly. It has already been noted, in §3.2.2, that pointing to a world-picture to justify a particular action is more difficult and less effective than pointing to a form of life. The features of a form of life are broad, spread out across a community and readily apparent in that community's actions. All that we need to perceive is immediately set before us in the shape of the features – customs, traditions, and so on – of that form of life. Perceiving the certainties comprising a world-picture is a more complex task.

First, we must consider that the 'propositions which stand fast' for someone are not learned 'explicitly' (OC §152). We cannot just ask someone what stands fast for them and expect a straightforward answer, for they have not learned certainties as

propositions. So simply asking what's going on and why they act this way – in the way that we could of someone on November 5th in England if we saw people gathered around fireworks and burning effigies – will be fruitless. Even were someone to have a good grip on what stands fast for them – perhaps they have some Wittgensteinian training – expressing it in the form of a proposition will still be problematic. Certainties are ways of acting, and verbal attempts to express them frequently sound 'odd' (OC §389), or even absurd.[132] Even though I have 'known something the whole time . . . there is no meaning in saying so, in uttering this truth' (OC §466) because there is no role for such expressions in our lives.

Our response, then, might be to observe, and see if we can perceive for ourselves what lies at the root of the practices that confuse us. Again, the breadth on show in a feature of a form of life is easy to perceive – the fireworks and the burning effigies – but the depth is not. We must be conscious that we will only discover a certainty 'like the axis around which a body rotates,' by perceiving the 'movement around it' (OC §152). If nothing else, this requires more detailed and varied observations than perceiving a feature of a form of life. Let us say, though, that we somehow manage to get a good understanding of what kinds of things stand fast for someone, by observing the practices of theirs that confuse us. If we have accurately picked out the appropriate level of depth to constitute a certainty of a person, we would like to think that this certainty applies across the form of life on which we have been making our observations. This would be an error, a symptom of the 'craving for generality' (BB, p. 17) Wittgenstein cautions against from the *Blue Book* onwards.[133] For although some certainties might happen to apply across the whole gathering of people on Guy Fawkes Night – say gravity, and the age of the earth – it is unlikely that all will be uniform. There will be atheists, Christians, Buddhists, and Jains, neo-Nazis, Marxists, pacifists, vegetarians and moral nihilists – each with very different certainties relating to matters spiritual, metaphysical and ethical – all engaging in a single feature of the same form of life. The lists of both participants and types of certainties could be extended almost indefinitely.

[132] See Stroll (1994), pp. 44-48, and q.v. §2.3.3.
[133] See also RPP1 §38.

Chapter 6 will resume this line of thought and explore the non-uniformity of certainties, even across what we might think to be a single world-picture.

This reading will reject the claim that we can readily assume identical world-pictures for two or more people, however similar their form of life, and suggest a variety of axes along which we might distinguish between different world-pictures. For now, though, the distinction between the form of life and the world-picture is sufficient, and this concludes the basic exposition of the later Wittgenstein and in particular *On Certainty*. Chapter 4 begins the process of extrapolating from *On Certainty* in order to examine the effect a thorough understanding of the world-picture has on communication and conversion. We begin this task by drawing parallels with Kuhn's *The Structure of Scientific Revolutions*.

Conclusions

This chapter sought to construct a breadth-depth distinction between the form of life and the world-picture. We began by drawing together the two concepts. Each belongs, for the most part, to a particular work of Wittgenstein's, form of life to *Philosophical Investigations* and world-picture to *On Certainty*. However, the world-picture did not displace the form of life, and points of crossover were demonstrated for each. Both indicate a point at which further rational argumentation gives out, but with different emphases. Form of life points to the breadth of practices across a community, whereas a world-picture and its certainties are deeply embedded in a person's life, structuring all sorts of standards for making assertions, judgements, and investigations. The features of a form of life one engages in can be chosen rationally, and one can pick up or depart from such customs at will (although, if one were to choose to drive on the right in England, there would be a penalty to pay). Certainties cannot be picked up and put down so cursorily.

The different emphasis of the interrelated terms reflects the primary concerns of the respective works they come from. *On Certainty* is, at least initially, interested in epistemology and an analysis of why the expressions Moore proposed are so compelling and yet not proper candidates for knowledge. Wittgenstein was interested just how deep the features of our lives indicated by the Moorean propositions go, and the extent to which they structure our other practices. *Philosophical Investigations* was primarily concerned with language, seeing connections, but also perhaps more importantly noticing dissimilarities as part of overthrowing the Augustinian picture; not all uses are identical, and in order to recognise this we need to be aware of just how far and to whom one use of a word stretches and where a different use takes over. Breadth and depth are, first, key features of the form of life and the world-picture, but also core themes of the works from which each term hails. By relating the two concepts in the manner proposed here we do not just demonstrate the deep links between *On Certainty* and *Philosophical Investigations*. We also carry with us into future chapters a powerful tool for examining both the breadth and depth of practices in human lives, creating a fuller picture with which to plot the concerns of communication and conversion.

Chapter 4 – Parallels with Kuhn – Crisis and Persuasion

4.1 Encountering other world-pictures

In *On Certainty*, Wittgenstein several times uses the example of no human ever having been far from the surface of the Earth or never having been on the Moon.[134] The idea in the 1950s of sending a human to the Moon – outside of a group of very forward-thinking astronomers – was, as the eminent British astronomer Sir Patrick Moore once noted, 'regarded as little more than a music-hall joke.'[135] When

[134] The two are roughly interchangeable for our purposes. See OC §§106, 108, 111, 117, 171, 226, 238, 258, 264, 269, 286, 327, 332, 337, 338, 661, 662, 667.
[135] Anon (2012). Note that Sir Patrick Moore is of no relation to G.E. Moore.

Wittgenstein wrote *On Certainty* in 1950-1 he was among the majority who considered it impossible.[136]

The suggestion by Patrick Moore that the idea of space travel was so absurd as to be funny echoes Wittgenstein's comments about the affirmation or negation of certainties seeming a joke or insane at OC §§106, 463, 467 and 468.[137] Wittgenstein makes many other references to the impossibility of a human visiting the Moon. In each instance, he regards the notion that we could reach the Moon as absurd, pointing out that 'our whole system of physics forbids it' (OC §108) and 'it is as sure a thing for me [that no one has been on the moon] as any grounds I could give for it' (OC §111).

At some point, the widespread conviction that our whole system of physics forbids space travel changed. At about the same time that Wittgenstein was writing *On Certainty* and rejecting the possibility of space flight, Patrick Moore and a few other astronomers were considering its possibility. Had Wittgenstein and Patrick Moore met and discussed space flight in 1950-1, Wittgenstein may well have considered Patrick Moore insane, or to be telling a joke.[138]

Although the possibility of space travel is now recognised, there was clearly a time when there where separate communities with different fixed points of reference on this matter, exemplified by Wittgenstein and Patrick Moore.[139] Not only do changes

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[136] Cf. Moyal-Sharrock (2007), p. 146: 'In Wittgenstein's lifetime, and prior to it, the idea that humans could walk on the moon seemed as fantastic as the sci-fi or utopian literature it appeared in.'

[137] Recall Stroll's principle of negational absurdity from §2.3.

[138] Given Wittgenstein's background in aeronautical engineering, he may well have been intrigued. On arriving at Manchester University in 1908, 'it was his apparent intention to construct, and eventually to fly, an aeroplane of his own design.' Monk (1990), p. 28.

[139] There are still those who proclaim all reports of space travel to be an elaborate multi-government-sponsored deception, initially as part of Cold War propaganda, ranging from Yuri Gagarin's first flight to all the later NASA Moon landings. These people largely publish their thoughts only on little-read Internet message boards, and so no scholarly references are available. Nonetheless, that there exists such a community holding one or more certainties radically different from the majority should not be ignored or passed off as irrelevant. It is also interesting to note that first-

in certainties reflect incremental change in a world-picture viewed as a whole, but also suggest that changes to individual certainties occur incrementally themselves. People who once considered 'our whole system of physics [to] forbid' (OC §108) space travel were converted one by one, even though we might, retrospectively, be tempted to think of this change as happening *en masse*.

Doubtless, some of the people instrumental in the pioneering efforts of putting humans in space inherited as children the same world-picture as Wittgenstein, one that precluded the possibility of space travel as a fundamental part of their inherited mythology. At some point, their world-picture in relation to this particular certainty regarding space travel must have changed. The riverbed metaphor illustrates how world-pictures can change in relation to the faster-flowing waters of empirical investigation, but it also raises fresh questions. What is it for two or more different world-pictures to come into contact with one another, and how do conversions in certainties and world-pictures happen? If Patrick Moore and Wittgenstein were to have met in 1950 and discussed the possibilities of space travel, would their claims have made sense to one another, or would communication be utterly impossible?

The themes of communication and conversion run throughout *On Certainty*. At stake is a re-evaluation of the work of *Philosophical Investigations* – in particular the concept of language-games – when positioned against the backdrop not of the homogeneous 'common behaviour of mankind' (PI, §206), but rather against a variety of world-pictures. Wittgenstein's investigation into different world-pictures is limited in *On Certainty*, but I suggest that close textual analysis reveals a clear trajectory of his thought to indicate this as a valid avenue of exploration.

Thomas Kuhn's *The Structure of Scientific Revolutions* was influenced by Wittgenstein's later work, and Kuhn had definitely read both *The Blue and Brown Books* and *Philosophical Investigations* by the time he came to write *The Structure of Scientific Revolutions* .[140] Kuhn even quotes Wittgenstein's concepts of language-

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time visitors to these virtual forums who are not part of the space travel-denying community often post messages querying whether the websites are intended in jest.

[140] See Cederbaum (1983), p.188.

games and family resemblance (SSR, pp. 26, 41, 56-7, 201).[141] *The Structure of Scientific Revolutions* investigates what it is for a scientist to change his 'matter-of-course foundations for his research' (OC §167), an event Kuhn terms a 'paradigm shift' (SSR, *passim*). He discusses how such conversions take place and what happens to communication between members of the old and the new paradigm. We will note parallels between Wittgenstein's and Kuhn's respective concepts of the world-picture and the paradigm. Our aim in this chapter is primarily to explore whether Kuhn's concept of incommensurability between paradigms can be of use in investigating comparable circumstances between world-pictures.

§4.2 will begin with a brief overview of *The Structure of Scientific Revolutions*, noting some important features of recent scholarly interpretation. §4.3 will continue by focusing on Kuhn's method of providing several historical examples of scientific practices, and drawing parallels between this method and Wittgenstein's of perspicuous representation. §4.4 examines Kuhn's conception of the role of rules in a scientific paradigm, also drawing comparisons with Wittgenstein's remarks on rules and rule-following in *Philosophical Investigations*. We will also note similarities between the understanding of the logical priority of paradigms and world-pictures to rules. §4.4 also introduces Kuhn's use of the term 'established bases', which make up a paradigm, and how they are both distinguished from and shape the role of rules.

§4.5 takes deeper the investigation into established bases. In order to grasp precisely what they are and how they are inherited, we will look at *On Certainty*, relating established bases to the certainties that make up a world-picture in that they are ungrounded, cannot be justified, and are logically prior to everyday scientific investigation. By the end of §4.5, we will have a clear outline of Kuhn's work, and deep comparisons with Wittgenstein will already have been drawn regarding the use of perspicuous representation, rules, and an ungrounded way of acting lying at the bottom of our practices.

[141] Henceforth, when referencing quotations from *The Structure of Scientific Revolutions*, Kuhn (1970), the book will be abbreviated to SSR in brackets within the main text.

§4.6 will explain just how deep these comparisons run, and begin to explore what we can learn from Kuhn's discussion of paradigm clash and take with us in the examination of world-picture conflict. Two themes will emerge: crisis, when one's paradigm or world-picture encounters a challenge it cannot readily accommodate; and persuasion, whereby non-rational means are the only ones available to effect a conversion of paradigm or world-picture. The final section of this chapter, §4.7, will introduce Kuhn's concept of incommensurability, preparing the way for a detailed investigation in Chapter 5. First, in §4.2, we turn to *The Structure of Scientific Revolutions*.

4.2 *The Structure of Scientific Revolutions*

Until Kuhn's challenge in *The Structure of Scientific Revolutions*, it was generally presumed that science is a progressive enterprise.[142] As Kramnick states in his introduction to the *Enlightenment Reader*, science 'fuelled millennial fervor in the Enlightenment. It was the basis for an unbounded faith in progress, a belief in perfectibility and the imminent elimination of pain and suffering.'[143] As we conduct more experiments and verify more theories, we are acquiring more truths and our theories are becoming more precise. Science, on this view, is cumulative, and it is a result of the method of science – of hypotheses, testing, refining apparatus for more accurate results – that this effect is guaranteed. A commitment to, as Naugle puts it, 'epistemic realism, a universal scientific language, and the correspondence theory of truth' were more or less mandatory requirements for this positivist conception of science.[144] Mandelbaum, somewhat similarly, describes how positivism was 'widely espoused in the nineteenth century' and was characterised by 'first, a rejection of metaphysics; second, the contention that science constitutes the ideal form of knowledge; third, a particular interpretation of the nature and the limits of science explanation.'[145] Our path to perfect knowledge of the physical world seemed inexorable. Crucially, in the words of Mary Hesse, 'man as scientist is regarded as standing apart from the world and able to experiment and theorise about it objectively and dispassionately.'[146]

There were other accounts of science and nature prevalent before the twentieth century. Kant's thought enjoyed a resurgence amongst neo-Kantians like Eduard Zeller and Kuno Fischer in the later nineteenth century, particularly in Germany as an

[142] This view was especially powerful in the post-war period before Kuhn published *The Structure of Scientific Revolutions* in 1970, especially as espoused by those associated with logical positivism, such as Carnap (1950) and Popper (1959).
[143] Kramnick (1995), p. xiii.
[144] Naugle (2002), p. 196.
[145] Mandelbaum (1971), p. 11. Mandelbaum also notes precursors to Kuhn in what he terms the 'loss of belief in Progress' (1971), p. 370. See Mandelbaum (1971), in particular Chapter 3 – The First Phase of Historicism: From the Enlightenment through Hegel.
[146] Hesse, M (1980), p. vii.

alternative to the debates between idealists and materialists.[147] Although neo-Kantian influence has now diminished, Oberheim detects neo-Kantian strains in Kuhn's contemporaries and successors, in particular Feyerabend.[148] Mandelbaum also claims that it was 'to Kant and Hume that [the later positivists] tended to trace their lineage,' even though there was also an anti-Kantian reaction in the work of those such as Helmholtz, Spencer, Huxley, and DuBois-Reymond.[149] The history of pre-twentieth-century science and philosophy of science is a complex and engaging area of debate. For our purposes, it is enough to note that positivism, albeit in various forms and with a tangled network of allegiances and lineages, was a dominant trend in pre-twentieth-century philosophy of science.[150]

Kuhn sought 'a quite different concept of science': dynamic, shifting, and untethered from the yoke of the prevailing, ideal image of science as relentlessly cumulative (SSR, p. 1). Science, Kuhn claims, proceeds through two different phases, the normal and the revolutionary. Normal science '*is* cumulative' (SSR, p. 96). Research is carried out 'firmly based upon one or more past scientific achievements, achievements that some particular scientific community acknowledges for a time as supplying the foundation for its further practice' (SSR, p. 10).

Kuhn likens normal science to 'puzzle-solving', in an effort to convey the impression that the scientist, like the cruciverbalist, has a high expectation of success (SSR, p. 35). Rather like a crossword, the boundaries as to what is permissible – the edges of the box – are already drawn. These are defined by the underlying assumptions to which the community of scientists adheres. What is left for the scientists is to fill in the blanks. These blanks encourage very little novelty, for no fundamental laws of science as held by the community can be broken. Instead, scientists work at refining their theses on an increasingly minute and esoteric level of detail. The findings of any experiment are largely anticipated to a high degree of precision. Often, what proves so interesting to scientists is 'achieving the anticipated in a new way, and it requires the

[147] See Mandelbaum (1971), p. 20. See also Skorupski (1993), p. 120, where he notes emerging affinities between the late–nineteenth-century positivism of Green and Peirce and neo-Kantianism.
[148] Oberheim (2006), p. 74.
[149] Mandelbaum (1971), pp. 13 and 290 respectively.
[150] See Losee (2001), particularly Chapters 11 and 12.

solution of all sorts of complex instrumental, conceptual, and mathematical puzzles' (SSR, p. 36). The adept scientist is a proficient puzzle-solver.

Revolutionary science seeks a new understanding of the basic laws assumed to hold by the scientific community. In revolutionary science, the crossword box is re-drawn. Scientific revolutions are 'inaugurated by a growing sense . . . that an existing paradigm has ceased to function adequately' (SSR, p. 92). When the prevailing model of normal science – Kuhn calls such models 'paradigms' – fails to account for one or more observed anomalous phenomena, a period of crisis ensues. It may be that, with further testing or a novel explanation, the phenomenon can be absorbed seamlessly into the old paradigm. However, when this is not possible, the model that previously dictated the terms of research for normal science is violated by this new phenomenon. A new paradigm must be constructed, with a new set of fundamental assumptions, in order to accommodate the anomalous phenomenon. If the old paradigm were retained, the anomaly would remain an unexplained and unexplainable phenomenon.

In order to appeal to scientists in a time of crisis, the new paradigm must perform most of the explanatory work of which the old paradigm was capable. Some hypotheses might be lost, no longer compatible with the new paradigm, and certain phenomena left unexplained. This has become known – though not labelled so by Kuhn himself – as 'Kuhn-loss'.[151] Kuhn notes that scientific revolutions are 'those non-cumulative developmental episodes in which an older paradigm is replaced in whole or in part by an incompatible new one' (SSR, p. 92). The Kuhn-loss stems from the fact that the new paradigm is incompatible with the old one. This ought not be surprising. 'Obviously,' says Kuhn, 'there must be a conflict between the paradigm that discloses anomaly and the one that later renders the anomaly lawful' (SSR, p. 97). Just what this conflict and incompatibility amounts to and entails will form a key focal point of the later parts of this chapter and the whole of the next when we come to look at the concept of incommensurability.

4.2.1 *Interpretations of 'The Structure of Scientific Revolutions'*

[151] It is generally agreed that the term was first introduced by Heinz Post, and thereafter widely adopted by subsequent scholars. See Post (1971), p. 229.

Kuhn's work has been both influential and divisive. Hoyningen-Huene's *Reconstructing Scientific Revolutions* provides a thorough survey of Kuhn's thought and is commendable for reintroducing *The Structure of Scientific Revolutions* into mainstream attention, but tends not to get too involved in 'reviewing criticisms of Kuhn to date' or the complexities of various interpretations.[152] Some, such as Michael Friedman (2001) have viewed *The Structure of Scientific Revolutions* as a work of historiography and as concerned primarily with the 'theory of the nature and character of scientific revolutions.'[153] Alexander Bird in *Thomas Kuhn* has characterised *The Structure of Scientific Revolutions* as an unsuccessful attempt to provide a hypothesis to explain the phenomena of scientific change.[154]

Closer to our own interests for this thesis, lies *Kuhn: Philosopher of Scientific Revolution*, by Wes Sharrock and Rupert Read, who class Kuhn's work as 'overwhelmingly philosophical'.[155] Perhaps this is unsurprising given that Sharrock and Read are both philosophers, and may want to claim Kuhn for one of their own. However, although they profess to having 'largely kept [their] own – Wittgensteinian – views in check', they do find Kuhn most plausible when he can be read in a way which seems of a therapeutic nature.[156] This depends in great part on their own stance on Wittgenstein and the nature of his work. In general, both Sharrock and Read lean heavily towards the therapeutic side of Wittgenstein interpretation.[157] Importantly, they neglect and misconstrue the aspect of Kuhn's use of historical examples,

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[152] Hoyningen-Huene (1993), p. xviii. *Reconstructing Scientific Revolutions* is, however, extremely clear and authoritative in terms of its pure presentation of Kuhn's arguments, and will occasionally be referred to later, in particular with regards to misinterpretations of incommensurability by Kuhn's critics.

[153] Friedman (2001), p.19.

[154] Bird (2000).

[155] Sharrock and Read (2002), p.498.

[156] Sharrock and Read (2002), p. 200-201 and *passim*

[157] For Rupert Read, see *The New Wittgenstein*, eds. Crary & Read, Abingdon, Routledge (2000). In the introduction to the collection, Crary notes that the papers therein, including Read's 'What could Kripke possibly mean?' (p. 74-82), 'agree in suggesting that Wittgenstein's primary aim in philosophy is . . . a *therapeutic* one.' (p. 1). For Sharrock, see Sharrock and Button (1999). For an introduction to the therapeutic reading of Wittgenstein, see Diamond (1995) and Conant (1989), or for a good though somewhat hostile summary, see Hutto (2006), especially pp. 50-52, 216-219.

regarding their purpose as being only 'to exemplify and dramatize the progress of philosophical revolutions – but that is perhaps their only philosophical relevance.'[158]

Vasso Kindi suggests a more plausible reading.[159] She sees parallels between the deployment of historical examples in *The Structure of Scientific Revolutions* and Wittgenstein's use of language-games in *Philosophical Investigations*. Kindi suggests that just as Wittgenstein pursued an anti-essentialist approach to language, Kuhn 'attacks an essentialist view of science.'[160] Kuhn presents three core arguments against the ideal image of science. We will look at the first two briefly here, leaving the third, about lexical change, for §4.3. The first asserts that to turn an anomalous result from an experiment into a normal phenomenon – that is, to prevent it from remaining an unexplained anomaly – a new paradigm is required if the old one cannot be modified to accommodate it. The new paradigm has to be capable of explaining this anomaly, as well as carrying a great deal of the explanatory value of the old paradigm, Kuhn-loss notwithstanding.[161] The result of Kuhn's method instead, as Kindi suggests, 'is an "open concept" of science, characterized not by delimiting necessary and sufficient conditions, but by a complicated network of similarities and dissimilarities.'[162]

The second argues that if science were cumulative then any anomaly could be explained away as a special case, specific to the precise circumstances in which the experiment that revealed the anomaly took place. Taken this way, the anomaly no longer threatens the normal-science law it apparently breaks. Instead, that law develops a sub-law, which permits such an anomaly under certain specifications: those specifications being the circumstances under which the experiment took place. There are three important consequences of this. One is that any theory of normal science is no longer applicable when experiments are conducted in a new area of enquiry pertaining to it, as these new areas will warrant their own special-case sub-laws. This would also apply if the research were being conducted in a previously

[158] Sharrock and Read (2002), p. 109.
[159] Kindi (1995) and (2005).
[160] Kindi (2005), p. 521. There are some dissenting voices; Kuukkanen has suggested that Kuhn is not straightforwardly an anti-essentialist. See Kuukkanen (2010).
[161] See SSR, Chapter IX: The Nature and Necessity of Scientific Revolution.
[162] Kindi (2005), p. 33.

examined area, but with greater precision than ever managed previously. A second consequence is that normal science would stop, as there would no longer be a paradigm to govern further research. It is essential that the 'commitment [to a paradigm] must extend to areas and to degrees of precision for which there is no full precedent. If it did not, the paradigm could provide no puzzles that had not already been solved' (SSR, p. 100). Finally, the nature of science would be radically altered, for 'the mechanism that tells the scientific community what problems may lead to fundamental change [would] cease to function' (SSR, p. 101). Science would not undergo revolutions, not because it is progressing cumulatively on an endless trajectory, but rather it because it would stagnate entirely, producing only an ever-increasing number of sub-laws and special cases.

4.3 Perspicuous representation in Wittgenstein and Kuhn

4.3.1 *Kuhn's use of historical examples*

Whilst the two arguments above are important to Kuhn's conception of paradigms and scientific revolution, the third argument interests us most here. That argument is about meaning or lexical change across different paradigms, which is itself the second of three arguments posited about incommensurability.[163] To understand Kuhn on lexical change, however, we must address the importance of the historical examples used by Kuhn. There is, as was briefly outlined earlier, a tension in recent scholarship. Its nature may be best summarised by Kuhn's own comment on this topic, several years after *The Structure of Scientific Revolutions* in *The Road Since Structure*: 'many of the most central conclusions we drew from the historical record can be derived instead from first principles.'[164]

Just what this means is the topic of some debate. If the historical examples used are not needed for most of the conclusions, which can instead be derived from first principles, why are they there at all, and why do they seem such an integral part of the book? The key is to see the purpose of the historical examples as setting out an approach or a method, rather than constituting an argument in themselves, in the same way that Wittgenstein uses language-games as his examples. Without this method in place, the actual arguments, in particular the third argument against science as cumulative, that of lexical change, would encounter great difficulties, possibly insurmountable ones.

In §1.4 we examined Wittgenstein's desire for a perspicuous representation of our linguistic practices, achieved by seeing connections between instances of language use. Sometimes, it helps to provide 'intermediate cases' (PI §122) supplied by the construction of fictional language games in order to draw attention to particular aspects of actual language use. Wittgenstein described this process of seeing

[163] Kuhn describes the incommensurability of standards, of concepts and vocabulary (or lexicon) and apparatuses, and of perceptual skills (SSR, pp. 148-150). The other two will be discussed where pertinent, but changes in meaning/vocabulary/lexicon will be the primary focus.
[164] Kuhn (2000), p. 112.

connections as being akin to seeing family resemblances (PI §167).[165] This method – as opposed to a theory – is one of anti-essentialism, placing a focus on the variety of use and thereby combating our 'craving for generality' (BB, p. 16-20).

In order to understand Kuhn's claim that 'many of the most central conclusions we drew from the historical record can be derived instead from first principles' we ought to view Kuhn's examples of past paradigms and revolutions in the same way Wittgenstein's method encourages us to view language-games.[166] On the one hand, Kuhn does present arguments, couched in propositions, and with justifications, reasons, and conclusions. It is probably true that his conclusions do not require the historical examples. In that sense, Sharrock and Read were close when they asserted that the purpose of the historical examples is to 'exemplify and dramatize the progress of philosophical revolutions'.[167] However Kindi is far closer when she states that:

> Just like language games "are meant to throw light on the facts of our language by way not only of similarities, but also of dissimilarities" (PI §130), Kuhn's historical cases are supposed to show (not in the sense of prove) how varied things have been and can be in the future.[168]

Wittgenstein, in setting out various examples of language use, hopes that the representation of the facts will persuade us that one instance of a word or a phrase or a

[165] Although not essential to the claims being made here, it is interesting to note that Kuhn, too, occasionally presents a fictional example rather than an actual one. For instance, in imagining the words of a Copernican convert, he suggests that 'Looking at the moon, the convert to Copernicanism does not say, "I used to see a satellite." That locution would imply a sense in which the Ptolemaic system had once been correct. Instead, a convert to the new astronomy says, "I once took the moon to be (or saw the moon as) a planet, but I was mistaken." That sort of statement does recur in the aftermath of scientific revolutions' (SSR, p. 115). Nowhere in this particular passage does he cite an actual response of a real scientist to such a conversion.

[166] Kuhn (2000), p. 112.

[167] Sharrock and Read (2002), p. 109.

[168] Kindi (2005), p. 521-2. It is also pertinent that Kuhn, in the preface to *The Structure of Scientific Revolutions*, notes that it was James Bryant Conant who 'introduced [him] to the history of science and thus initiated the transformation in [Kuhn's] conception of the nature of scientific advance' (SSR, p. xi). Conant's emphasis on the history of science as a way of perceiving its progression was a significant influence on Kuhn's thought. See, for example, Conant (1951).

concept does not prescribe its appropriate uses in all other contexts. Words do not fit into an ideal image, where meaning is fixed independently of use. Kuhn, in displaying, for example, the difference between the Ptolemaic and Copernican conceptions of the solar system, indicates that the chronologically prior theory – the Ptolemaic – did not set permanently the concept of orbits of celestial bodies.[169] In the Ptolemaic conception, the Earth sits at the centre, beyond which, in ascending order of orbiting distance from the Earth, lie the Moon, Mercury, Venus, the Sun, Mars, Jupiter, and Saturn. Kuhn, once the difference between this and the now-familiar Copernican/Galilean conception of the solar system has been laid out, does not proceed to a rigorous proof of his thesis (SSR, p. 69). At this stage, he is content to let the multiplicity of scientific views over time reveal itself.

This may not be wholly surprising. No one asserts that all the views held by past scientists are held to be equally true by those of today. But as the discussion in Chapter VII of *The Structure of Scientific Revolutions* progresses, and Kuhn elaborates on the concept of crisis brought about by the clash of two incompatible theories, it becomes clear that the differences between the two theories are not reconcilable in a manner that could give equal weight to both and find a suitable synthesis. For one to find favour the other must be dismissed utterly, so fundamental are the grounding assumptions each builds upon. Ultimately, this required Kepler's analysis proposing elliptical – rather than strictly circular – orbits, and Galileo's conjectures about the role of friction on a moving object, to draw out the fundamental differences between the two.

At this stage, Kuhn has simply presented two theories which the modern reader, with a very basic understanding of science, can see differ in content. By examining the similarities and dissimilarities, we can note the incompatibility of the two for ourselves. The grip of the ideal image of science as perennially cumulative has already been loosened, even though no hypothesis has yet been advanced. The Ptolemaic conception cannot be preserved once the Copernican has been adopted. Wittgenstein wants us to see the similarities and dissimilarities between language

[169] Kuhn (2000), p. 67-9.

usages; Kuhn wants us to see the similarities and dissimilarities between different scientific modes of thinking.

Kuhn has presented us with the potential for a certain way of seeing. By setting out various examples of one scientific model superseding another, the groundwork is laid for the positive theses he wishes to propose. These theses may well be capable of some serious work without this way of seeing – a worthy discussion of whether this is indeed the case is far beyond the remit of this thesis – but their force would certainly be substantially diminished.

4.3.2 *Lexical change*

Before we considered Kuhn's use of perspicuous representation, the argument about lexical change had been introduced, and we return to this now. Kuhn argues persuasively that Newtonian dynamics cannot be derived from relativistic dynamics (SSR, pp. 101-3). These two theories, he states, 'are fundamentally incompatible in the sense illustrated by the relation of Copernican to Ptolemaic astronomy: Einstein's theory can be accepted only with the recognition that Newton's was wrong' (SSR, p. 98). The prevailing view of Kuhn's time was that Newtonian theory could be preserved as a special case of the Einsteinian (SSR, p. 98). The problems of this approach, for Kuhn, have already been detailed above. Where two theories conflict, but one or the other is preserved as a special case, science is reduced to sub-laws that deny the possibility of refutation. What the discrepancy between the two theories comes down to is that 'unless we change the definitions of the variables in the [statements embodying Newtonian theory], the statements we have derived are not properly Newtonian . . . we have had to alter the fundamental structural elements of which the universe to which they apply is composed' (SSR, p. 102).

As Read and Sharrock note, 'the last point is crucial. Kuhn argues that Newton and Einstein take the universe to be populated by different fundamental entities. There is no way . . . for one to intertranslate between the two without obliterating this vital

fact.'[170] If one sticks faithfully to the meanings of terms like 'mass' and 'motion' as they are used in Newtonian theory, then one cannot use them in the same way in association with Einsteinian theory. The concepts are wholly distinct and cannot be reconciled such that they mean the same thing. What we are being deceived by, Wittgenstein might say, is the apparent uniformity of language. The words as they are written or spoken are the same but their meanings are not. We can tell this simply by examining the way in which they are used, their context. Kuhn, like Wittgenstein, notes that linguistic use is inextricably linked to the practices of a community. Newtonian scientists didn't use the terms 'motion' or 'mass' in the same way as Einsteinian scientists because the practices of their respective communities differ so greatly. So, the scientific community, who, shortly after Newton's time, adopted his theory of dynamics, did not use the concepts in the same way as Einstein, and so the concepts themselves are different. In fact, that is precisely why Einstein's theory superseded Newton's: it was able to provide explanatory power in certain areas that Newton's lacked. If all the concepts associated with all the words used by Newton had been identical with Einstein's, there would have been no advantage in adopting Einstein's theory.

With this fact in mind, Kuhn's argument about lexical change looks somewhat Wittgensteinian. Here we have the example of the same term being deployed in different contexts. The difference in the context is separated chronologically, rather than amongst different language-game-playing tribes, but this does not matter at all. An identical term is used in two different contexts with two wholly different meanings. If the meanings of terms were fixed in the way that Russell, Frege, or even the early Wittgenstein claimed, serious problems would be posed for Kuhn's analysis of the Newton-Einstein dispute.[171] If mass means one particular thing, an eternal, mind-independently fixed meaning, there are only two possibilities. Either Newton's and Einstein's theories must tally, and the one be derivable from the other; or one must be declared as wrong, as not giving a true – that is, on a firmly realist conception – description of mass.

[170] Sharrock and Read (2002), p. 144.
[171] That is to say, any theory of language in thrall to the Augustinian picture described in §1.1 could not accommodate Kuhn's analysis.

Kuhn has shown that the two theories do not entail the same results; their conclusions are not co-extensive. Even the positivists only claim that the same results can be produced by the two at low relative velocities (SSR, p. 102). On the other hand, one theory cannot be declared wrong, as a simple case of refutation, for this would wholly conflict with the essential thrust of Kuhn's work. One would have to make several ontological commitments, ultimately entailing a realist conception of truth, with the added proviso that one of these theories – whichever is to be deemed correct – has hit just such a mark. If even the most basic of Kuhn's idea are to be preserved, a fixed-meaning account of language must be ruled out.

Not only does Kuhn's use of historical examples bear similarity to Wittgenstein's use of linguistic examples, Kuhn's ideas depend on the view that perspicuous representation produces. That is not to say that Kuhn's work is a direct derivation of Wittgenstein's work. However, the fundamental principles on which Kuhn's investigation is based bear certain similarities with Wittgensteinian's, not just in the similarity of their structure and methods used, but also, at least in part, in terms of the conception of language deployed. Without this background work, where we are presented with a fresh way of seeing, it is difficult to see how the first principles would lead anywhere at all. The ideal image of science must first be escaped before a new picture can be presented, and that is the role of the historical examples.

4.4 Kuhn and rules

Any account claiming to bear parallels with Wittgenstein's conception of language would be incomplete without a discussion of rule-following. There are three points of comparison to be made between Wittgenstein's and Kuhn's respective understanding of the role of rules in human activities (Kuhn's being limited to scientific practices). In both their conceptions, they:

a) reject a more traditional assumption that these rules are somehow metaphysically real, absolute, and mind-independent,

b) describe rules as being established by practice and custom, and

c) describe rules as governing human activities, but with variation in rules across different communities.

In Chapter IV of *The Structure of Scientific Revolutions*, a discussion of rules comprises a crucial part of Kuhn's exposition of normal science as a puzzle-solving activity. Rules in *Philosophical Investigations* were covered in depth in §1.3. In this section, we will focus primarily on Kuhn's exposition so as not to reiterate the points on Wittgenstein already made, drawing attention to the three points of comparison in *Philosophical Investigations* and occasionally *On Certainty* via footnotes where relevant.

Kuhn begins by noting that:

> If it is to classify as a puzzle, a problem must be characterised by more than an assured solution. There must also be rules that limit both the nature of acceptable solutions and the steps by which they are to be obtained . . . Similar restrictions upon the admissible solutions of crossword puzzles, riddles, chess problems, and so on, are readily discovered (SSR, p. 38).

Within scientific practices, it is not a case of any solution to a puzzle goes. Rules delimit what sort of methods and results would be acceptable, much as the 8x8 board and rules on movement of different pieces determine which solutions to a complex chess problem are permissible. At once, Kuhn strips science of the grander claims

made by the ideal image of science, because the rules with which he draws comparison are not mind-independently created. They are anthropocentric in origin, and exist because a custom exists behind them.[172]

Kuhn refers to Wittgenstein's conception of family resemblance in order to explain the diversity of rules in what seems at first to be a 'single monolithic and unified enterprise' (SSR, p. 49).[173] There are several sub-disciplines within science. The most obvious lines we could draw might be between physics, chemistry, and biology, although these distinctions are somewhat crude. Each sub-divides further into highly specialised fields and cross-disciplines within those sub-disciplines. Speaking of various research problems and techniques, Kuhn suggests that:

> What these have in common is not that they satisfy some explicit or even fully discoverable set of rules and assumptions that gives the tradition its character and its hold upon the scientific mind. Instead, they may relate by resemblance and modelling to one or another part of the scientific corpus which the community in question already recognises as among its established achievements (SSR, pp. 45-6).[174]

Different scientific disciplines and sub-disciplines within a shared paradigm engage in different activities; each activity has its own set of rules. Where there are differences in rules within a shared paradigm, there will be a family resemblance between the rules. As Ian Hacking puts it:

> Is science then one kind of thing at all? There is no set of features peculiar to all the sciences, and possessed only by sciences. There is no set of necessary and sufficient condition for being a science. There

[172] Regarding a) on rules as anthropocentric in origin and mind-dependent – as opposed to metaphysical 'rails laid to infinity' – see PI §§212-225, and in particular §218. Regarding b) on rules as established by customary practice, see PI §198: 'a person goes by a sign-post only in so far as there exists a regular use of sign-posts, a custom.'

[173] Q.v. §1.4 on family resemblance.

[174] Regarding c), rules govern human activities, but with variation in rules across different communities, see PI §§23, 24, 53, and p. 191.

> are a lot of family resemblances between sciences. Importantly, there are quite different kinds of "unifiers".[175]

Different rules govern different activities and create different language-games, where lexical meaning differs slightly across different sections of the broader community. However, rules do not govern only language use in scientific activity. They also provide 'conceptual, theoretical, instrumental, and methodological' guidance, and 'tell the practitioner of a mature specialty what both the world and his science are like [so that] he can concentrate with assurance upon the esoteric problems that these rules and existing knowledge define for him' (SSR, p. 42). If normal science is a puzzle-solving activity – or rather, several different puzzle-solving activities related to one another by family resemblance – then the rules complete the metaphor, delimiting the possibilities for each individual puzzle.

4.4.1 *The Priority of Paradigms*

Rules, whilst essential in order to make clear to scientists what challenges they face and how they ought to go about solving them, are not the primary source of coherence for a scientific research tradition. Separate from rules, Kuhn also identifies 'quasi-metaphysical commitments' held by scientists (SSR, p. 41). We ought to think of these quasi-metaphysical commitments as convictions about, for example, the 'fundamental structural elements of which the universe . . . is composed' (SSR, p. 102).

In the seventeenth century it was widely assumed that the most basic physical material was that of microscopic corpuscles. The influence of Corpuscularianism ranged from Descartes through to Robert Boyle and John Locke. Any natural phenomena, it was thought, could be explained via reference to the movement, shape,

[175] Hacking (1996), p. 68. Hacking goes on to list some unifiers that have been proposed, and notes that mathematics is often cited as the 'common denominator'. This only works, though, because of 'Wittgenstein's phrase, "the motley of mathematics" . . . it is just because mathematics is such a motley that it does such a good job of making science look as if it were one unified activity: if we can apply mathematics to it,' he finishes sarcastically, 'it must be one thing!' *Ibid*.

or interaction of these corpuscles. There were two facets to this assumption: the metaphysical and the methodological.

> As metaphysical, it told [scientists] what sorts of entities the universe did and did not contain: there was only shaped matter in motion. As methodological, it told them what ultimate laws and fundamental explanations must be like: laws must specify corpuscular motion and interaction, and explanation must reduce any given natural phenomenon to corpuscular action under these laws. More important still, the corpuscular conception of the universe told scientists what many of their research problems should be. (SSR, p. 41)

The distinction between rules and the quasi-metaphysical commitments of a paradigm is important. 'Rules,' Kuhn suggests, 'derive from paradigms, but paradigms can guide research even in the absence of rules' (SSR, p. 42). Kuhn describes the quasi-metaphysical commitments as 'less local and temporary [than rules], though still not unchanging characteristics of science' (SSR, p. 41). So rules occur within a paradigm, which itself is structured by quasi-metaphysical commitments and these in turn present methodological and metaphysical – in terms of to what fundamental entities theories ought to reduce – guidance for research and hypotheses.

Having presented four arguments for the priority of paradigms, Kuhn concludes by describing paradigms as having 'a status prior to that of shared rules' (SSR, p. 49).[176] Further, he asserts that it is the 'established bases of their field' that make up scientists' paradigms, for the established bases form a 'historically and pedagogically prior unit,' which present methodological and metaphysical guidance for scientists even in the absence of the lower-level and more local rules (SSR, p. 46). These established bases – I will henceforth use this term instead of quasi-metaphysical commitments, simply because it is shorter – do differ depending on the scientist's specialisation. Kuhn provides an intriguing illustration of the effects – both methodological and metaphysical – different established bases reveal:

[176] Also throughout SSR Chapter V – The Priority of Paradigms.

> An investigator who hoped to learn something about what scientists took the atomic theory to be asked a distinguished physicist and an eminent chemist whether a single atom of helium was or was not a molecule. Both answered without hesitation, but their answers were not the same. For the chemist the atom of helium was a molecule because it behaved like one with respect to the kinetic theory of gases. For the physicist, on the other hand, the helium atom was not a molecule because it displayed no molecular spectrum. Presumably both men were talking of the same particle, but they were viewing it through their own research training and practice. Their experience in problem-solving told them what a molecule must be. Undoubtedly their experiences had had much in common, but they did not, in this case, tell the two specialists the same thing. (SSR, pp. 50-1)

Crucially, for our purposes, Kuhn describes this as a case of 'consequential paradigm differences' (SSR, p. 51). Not only are the established bases prior to rules, but, where there are differences, they entail a difference in paradigm, even though in this case the difference is probably rather slight, and certainly not as stark as between, say, a Ptolemaic and a Copernican astronomer.

Exactly what is the nature of this priority or of the established bases has not yet been fully investigated, nor whether Wittgenstein considers world-pictures prior to rules and language-games in a comparable way. We are still to understand fully the established bases that make up paradigms, how they are generated, inherited, and what impact they have on practice and rules. §4.5 will examine these issues, drawing on Wittgenstein's *On Certainty*, and claim that the established bases of a paradigm are inherited by scientists in the same manner in which we acquire certainties: as part of our upbringing or education and unconsciously, i.e. indirectly. These claims open up the possibility that paradigms themselves cannot be justified and are ungrounded, just as one cannot provide a justification for one's world-picture. Once we are in a position to make this claim, in §4.6 we can progress to examining what might persuade a scientist to change his paradigm, or a person to change his world-picture.

4.5 *On Certainty* and *The Structure of Scientific Revolutions*

This section explores three core concepts that have already been addressed in relation to *On Certainty*. These are: (i) the unjustifiable nature of certainties, for they are an ungrounded way of acting and, except in very specific circumstances, non-propositional; (ii) the difficulty in articulating certainties, for they are liable to sound insane or a joke; (iii) the riverbed metaphor, which describes the slow-changing certainties as both opposed to and delimiting the possibilities for all other investigations and empirical propositional claims.

We return to these familiar themes in order to see whether comparisons made with Kuhn in these regards are sustainable. If they are, then not only will we have acquired an alternative angle from which to consider *On Certainty*, but we will also be able to introduce the concept of incommensurability and apply it to cases of world-picture conflict. The section will conclude that strong parallels can be drawn in all three respects. There is substantial textual evidence from *The Structure of Scientific Revolutions* to back these claims. In short, we wish to be able to substitute 'certainties' with 'established bases' in all three of the above statements. Each sub-section will begin with a brief re-statement of the relevant conclusions drawn from *On Certainty* in Chapter 2, followed by analysis of comparisons with Kuhn.

4.5.1 (i) *The unjustifiable nature of certainties and established bases*

Recap: Wittgenstein considers certainties to be unjustifiable because they are ways of acting (OC §110), and because they provide the very standards and methods by which we define our practices of justification. We learned these indirectly (OC §152) as part of our upbringing (OC §7), and so when we learned these practices no justification was provided. There is no role in our lives for certainties to be treated as empirical propositions (OC §§308, 347), for doubt or mistake (OC §138), and so evidence cannot be provided either way (OC §§4, 191). Justification must reach an end, and 'at some point one has to pass from explanation to mere description' (OC §189).

Kuhn's description of a paradigm suggests a similar willingness to respect the end of possibilities for justification. He notes that:

> The shared paradigm [is] a fundamental unit for the student of scientific development, a unit that cannot be fully reduced to logically atomic components which might function in its stead' (SSR, p. 11).

This sounds like the point at which Kuhn reaches 'bedrock' (PI §78). For if we have reached a fundamental stage, there can be no evidence lying below it that might justify the fundamental stage itself. He goes on to claim that the reasons for this inability to justify paradigms involve paradigms' enacted nature and role in a scientific education. His point can be broken into two parts. First, he notes that one aspect of the difficulty in picking out and justifying the logical rules that make up a paradigm is that the 'difficulty is very nearly the same as the one the philosopher encounters when he tries to say what all games have in common' (SSR, p. 46).[177] By this he means that even the constituent logical rules of a paradigms – the established bases – bear only a family resemblance to one another. There is no single feature common to all, and therefore isolating a single aspect of the paradigm – its 'logically atomic components' – is an especially tricky task.

Kuhn's second point is deemed a 'corollary' to the first, but in fact might be better described as an explanation of it (SSR, p. 46). 'Scientists', Kuhn is at pains to point out, 'never learn concepts, laws, and theories in the abstract and by themselves' (SSR, p. 46). These 'intellectual tools are from the start encountered in a historically and pedagogically prior unit that displays them with and through their application' (SSR, p. 46). Concepts, laws, and theories are mere formulations of ways of acting. In time, a new theory may become accepted into scientific textbooks. But even there, a pupil discovers the meanings of the terms involved 'less from the incomplete though sometimes helpful definitions in his text than by observing and participating in the application of these concepts to problem-solution' (SSR, p. 47). If they do 'learn abstractions at all, they show it mainly through their ability to do successful research' (SSR, p. 47).

[177] Note the reference to 'a philosopher' and 'games'; this follows Kuhn's citation of Wittgenstein's influence on the two preceding pages, pp. 44-5.

These two points made by Kuhn exemplify several connections with *On Certainty*. The components of a paradigm are logically, historically, and pedagogically prior to the theories a science student learns. The paradigm is constituted from several ways of acting, which cannot in themselves be justified. When students are indoctrinated into a paradigm, they do not learn about it directly, but indirectly, through participating in scientific activities. They must also demonstrate a skill successfully in order for it to be said that they have learned the abstract concepts of theories and terminology, just as in order to be said to be literate or numerate, one must be 'master of a technique' (PI §199).

Kuhn advances his point about how we inherit an understanding of the established bases of a paradigm:

> Science students accept theories on the authority of teacher and text, not because of evidence . . . the applications given in texts are not there as evidence but because learning them is part of learning the paradigm at the base of current practice (SSR, p. 80).

The examples in textbooks are part of the practice required to acquire the established bases of the paradigm, but, as we have seen, in order to be a well-regarded scientist one must demonstrate one's understanding in practice. Given that this is science we are discussing, it would be reasonable to ask how these theories achieved such dominance and universal acceptance in the first place. Kuhn answers this question by pointing out that, at various times, various texts have been taken to 'expound the body of accepted theory, illustrate many or all of its successful applications, and compare these applications with exemplary observations and experiments' (SSR, p. 10). Kuhn lists some examples:

> Aristotle's *Physica*, Ptolemy's *Almagest*, Newton's *Principia* and *Opticks*, Franklin's *Electricity*, Lavoisier's *Chemistry*, and Lyell's *Geology* – these and many other works served for a time implicitly to define the legitimate problems and methods of a research field for succeeding generations of practitioners (SSR, p. 10).

Whilst Aristotle, Ptolemy, Newton, Franklin, Lavoisier, and Lyell, when engaging in the research that led to these works, were tackling very real, open questions and testing empirical propositions, at some point, their work became part – perhaps even the embodiment – of a widespread scientific paradigm.[178] To compare this with Wittgenstein: what were once empirical propositions – open to debate, doubt, and amassing of evidence for and against – become 'hardened' (OC §96) and form part of the scientist's 'frame of reference' (OC §83).

Although the established bases of a paradigm were once tested and found persuasive as empirical theories, that is no longer their role. They have become part of the 'matter-of-course foundations for . . . research' (OC §167), and 'define the legitimate problems and methods of a research field for generations of practitioners' (SSR, p. 10). Formerly empirical propositions that have become embedded as established bases cannot any longer be doubted at will. To do so would put one at odds with the rest of one's scientific contemporaries. There is no role for justification in the case of established bases, though they may once have been open to empirical investigation.

4.5.2 (ii) *Difficulty in articulating certainties and established bases*

Recap: Wittgenstein offers a range of features that distinguish certainties from knowledge (OC §1), describing them as belonging to different categories (OC §308). Due to the fundamental status they hold in our lives (OC §137), doubt and mistake are logically meaningless when it comes to certainties (OC §504). Everything speaks in their favour and nothing against (OC §4). Consequently, affirming a certainty is likely to sound like a piece of superfluous information (OC §460) and the person who affirms it is liable to be thought 'insane' (OC §467) or making a 'joke' (OC §463). Although the same proposition we might express in an attempt to verbalise a certainty might have an application in a different circumstance, with a different use, certainties

[178] Not simultaneously, we ought to add. Some of these works and the paradigms they exemplify are incommensurable. This term, 'incommensurable', will be given greater attention in the next chapter. For now we can think of it as roughly meaning 'incompatible'. Kuhn himself occasionally describes it as such. See, for example, SSR, p. 92.

– those particular ways of acting – are non-propositional (OC §347). Those attempts to make a certainty fit into a proposition are the expressions Wittgenstein 'should like to expunge from philosophical language' (OC §31).

Kuhn's argument begins from what seems to be anecdotal experience:

> Though many scientists talk easily and well about the particular individual hypotheses that underlie a concrete piece of current research, they are little better than laymen at characterising the established bases of their field. (SSR, p. 47)

Kuhn recognises the difficulty in verbally establishing what lies at the root of scientific practice. Rather than attempt to express such abstract ideas, scientists 'show it mainly through their ability to do successful research' (SSR, p. 47). Were a scientist suddenly to stop acting in accordance with these ineffable bases, his actions would change. Given that scientists can 'agree in their identification of a paradigm without agreeing on, or even attempting to produce, a full interpretation or rationalisation of it,' we can assume that a scientist acting according to a different set of bases would be quickly noticed by his colleagues regardless of whether he or his colleagues could articulate precisely where is he has gone wrong (SSR, p. 44). They, too, might think his new way of acting queer or a joke, or worry that he was insane, or simply be very confused as to what is going on.

It is through performing actions – carrying out experiments and analysing the results in certain ways – that fit the paradigm into which he is being inducted that a science student is proclaimed to be proficient. A student must master several techniques in order to become part of the scientific community, and permitted to teach others the appropriate skills. As Kindi puts it: 'There always remains something which cannot be fully and explicitly put into words since it is the outcome of nonlinguistic activities.'[179]

Paradigms are articulated by procedures other than attempting to express verbally the

[179] Kindi (1995), p. 78.

established bases of a field. Kuhn lists 'three normal foci for factual scientific investigation' (SSR, p. 25). Determination of scientific fact involves improving the scope and accuracy of very specific facts, such as, in chemistry, 'boiling points and acidity of solutions', and in physics, 'electrical conductivities and contract potentials' (SSR, p. 25). A somewhat rarer second category of comparing facts with paradigm predictions would involve comparing, say, Einstein's general theory of relativity directly with nature. Such processes are rare because theories are often highly abstract and mathematical in nature, rendering the construction of useful experiments difficult.

Finally, Kuhn notes a third category: 'empirical work undertaken to articulate the paradigm theory, resolving some of its residual ambiguities and permitting the solution of problems to which it had previously only drawn attention' (SSR, p. 27). Empirical work undertaken to articulate a paradigm 'proves to be the most important of all, and its description demands its subdivision' (SSR, p. 27). Kuhn describes three of these subdivisions: experiments 'directed to the determination of physical constants' (e.g. attempts to determine the universal gravitational constant after Newton's *Principia*); experiments aimed at quantitative laws (e.g. Boyle's Law relating gas pressure to volume, experiments for which were inconceivable until a change in the paradigm emerged to recognize air as 'an elastic fluid'); and finally experiments exploring the best way to apply a paradigm to new areas of interest (SSR, p. 27-9).

All of the initial three categories represent the everyday work of scientists. All three also involve the testing or refining of the paradigm. The first two are somewhat more likely to leave the paradigm unchanged, and are more concerned with refinement and confirmation of the inherited paradigm. The third – empirical work undertaken to articulate the paradigm theory – looks to be more likely to present an opportunity for the established bases of a paradigm to be verbalized. For when Kuhn notes in the third subdivision of this third category that the aim is the exploration of the best way to apply a paradigm to new areas of interest, it would appear that the scientist must have a pretty clear idea of what she is applying to a new area of interest. Nonetheless, the scientist does not need to be aware of the 'particular abstract characteristics' that characterize a paradigm in order to decide upon its appropriate future application, for scientists can:

> agree in their *identification* of a paradigm without agreeing on, or even attempting to produce, a full *interpretation* or *rationalization* of it. Lack of a standard interpretation or of an agreed reduction to rules will not prevent a paradigm from guiding research (SSR, p. 44).

In other words, even to carry out some of the most theoretical, exploratory work a scientist can engage in – determining what new areas might be useful or reasonable future projects for the existing paradigm – no rationalization or linguistic expression of the paradigm is necessary, let alone for the more mundane processes of the first two categories.

This understanding, Kuhn points out in a footnote, is presented similarly by Polanyi, when he argues that a 'scientist's success depends upon "tacit knowledge", i.e. upon knowledge that is acquired through practice and cannot be articulated explicitly' (SSR, footnote to p. 44). In all three of the categories mentioned above, Kuhn is clear that he is describing different sorts of experiments. Their aims are different, but they are all – as we would expect from scientists – empirical research. Scientists inherit their paradigm from their mentors, and as long as they have mastered the techniques to set up and perform their experiments, no articulation of the established bases that ground their paradigm are required. The articulation of a paradigm consists in just those nonlinguistic activities described by Kindi.

The ability that science students acquire can, says Kuhn, be understood 'without recourse to hypothetical rules of the game' (SSR, p. 47). It is a crucial feature of the priority of paradigms that a paradigm can guide research without the ability to put into words the logical rules that comprise it. Kuhn's established bases of a paradigm share an ineffable nature with Wittgenstein's certainties. For instance, compare Kuhn's comments about scientists being able to be inducted into – and their practice governed by – a paradigm without recourse to hypothetical rules of the game with Wittgenstein's that certainties 'can be learned purely practically, without learning any explicit rules' (OC §95). In both, the individual ineffable ways of acting are constituent parts of a logically prior unit – a network of various actions – that provides a structure for all our 'enquiring and asserting' (OC §162). All that is needed

to express and recognise a paradigm is to master the various techniques whose possibilities are delimited by it. Actions – not words – express a paradigm.

4.5.3 (iii) *The riverbed metaphor*

Recap: In the riverbed metaphor, Wittgenstein indicates that whilst certainties are what 'stands fast' for us (OC §116), they are not immutable. The metaphor describes the riverbed and the water flowing over it. The riverbed represents our certainties, and the water our empirical investigations (OC §97). He draws two distinctions. The first is 'between the movement of the waters on the river-bed and the shift of the bed itself', which he qualifies by noting that 'there is not a sharp division of the one from the other' (OC §97). Whilst slower to shift than the waters of empirical investigation, the 'mythology may change back into a state of flux, the river-bed of my thoughts may shift' (OC §97); certainties change, but gradually, almost imperceptibly. The second distinction is between the different depths at which our certainties are held, their respective propensities to shift: 'the bank of that river consists partly of hard rock, subject to no alteration or only to an imperceptible one, partly of sand, which now in one place now in another gets washed away or deposited' (OC 97).[180] Some certainties are more deeply embedded and less prone to change than others.

In §4.4.1 we noted Kuhn's description of the established bases of a paradigm as 'less local and temporary [than rules] though still not unchanging characteristics of science', where he described Corpuscularianism and contrasted it with modern scientific paradigms incorporating atomic theory (SSR, p. 41). Kuhn's point was that although established bases are broader in scope and may shift slowly, they are not eternally fixed, and this movement is distinguished from the faster-moving currents of theories and rules. Historical study – with the method of perspicuous representation – shows this clearly enough on its own. Corpuscularianism is now obsolete, yet for decades it defined vast areas of scientific practice and theorising.

[180] Q.v. §6.4.3 where further justification for this interpretation of OC §99 is provided, *contra* Moyal-Sharrock's reading that certainties stand equally fast.

Kuhn's process of historical analysis alone indicates that such radical paradigm shifts – like the demise of Corpuscularianism and rise of the atomic model – are rarer than changes to theories. Kuhn regularly uses the example of the conversion from the Ptolemaic to the Copernican astronomical paradigm. The former, geocentric model, dominated for at least a millennium and a half, and the latter, heliocentric model has been the almost-universal paradigm for over four hundred years. By contrast, the measurement of the speed of light grew in precision regularly over the course of the twentieth century. Each refinement resulted in no changes to the paradigm, but rather developed the puzzle-solving proficiency of the investigators.[181]

Consider again Wittgenstein's comments about the impossibility of putting a man on the Moon. Written in 1950, this was soon to be falsified, in 1969. Yet, for thousands of years of human history, this was a certainty. The root of that certainty might have shifted over the years – past cultures may not have considered the Moon to be a physical satellite of Earth – but the core of this hinge, that no one can visit the Moon, remained intact for centuries. Was Wittgenstein, and all who preceded him, wrong? We can comfortably say yes. Should he have doubted this particular hinge? Absolutely not, and Wittgenstein is exceptionally clear about this:

> If we are thinking within our system, then it is certain that no one has ever been on the moon. (OC §108)

> This body of knowledge has been handed on to me and I have no grounds for doubting it, but, on the contrary, all sorts of confirmation. (OC §288)

Everything in Wittgenstein's world-picture reinforces his conviction that space flight is impossible, even though later generations would come to find this ridiculous. This is a sentiment echoed by Kuhn in *The Road Since Structure*, when he claims that children's picture of the world is imparted:

[181] Between 1907 and 1983, six different techniques presented increasingly refined results of the speed of light with decreasing ranges of uncertainty, ranging from 299,710km/s (±30) to 299,792.458. See Essen and Gordon-Smith (1948), passim, and Jennings (1987), p. 11.

> indirectly, by inheritance, embodying the experience of their forebears. As such it is entirely solid, not in the least respectful of an observer's wishes and desires; quite capable of providing decisive evidence against invented hypotheses which fail to match its [own] behaviour. Creatures born into [any paradigm or picture of the world] must take it as they find it. They can of course interact with it, altering both it and themselves in the process, and the populated world thus altered is the one that will be found in place by the generation that follows.[182]

One cannot doubt one's own paradigm at will, and the paradigm provides a basis on which to reject incompatible hypotheses. The paradigm can change, but slowly, through sustained human interaction, and not at once in the face of an alternative proposition. Although Wittgenstein's widely held certainty about the Moon changed, it would have happened slowly – as plans and ideas were drawn up for a possible manned mission to the moon – and it would not have been a meaningful doubt to question that certainty until this process started happening. It also required something truly exceptional to shift this certainty, an actual manned Moon landing. So, too, for the established bases of Kuhn. In Kuhnian terms – though this example is rather more stark than most we might expect to find in the sciences – an anomaly, that of a Moon landing, was needed to shake this certainty. Everything that we have seen in this chapter about established bases indicates that they are acquired by scientists and have a similar effect at directing enquiry as certainties like 'it is impossible for humans to visit the Moon'. That particular hinge once defined the terms of reasonable enquiry, but does not any longer. Corpuscularianism also once dictated which sorts of puzzles might be investigated scientists and possible methods for their solution, but does so no longer, as the riverbed has shifted over time.

[182] Kuhn (1990), pp. 101-2.

4.6 Crisis and Persuasion

§4.5 described three links between *The Structure of Scientific Revolutions* and *On Certainty*. These drew specific parallels between established bases and certainties, pointing to more general similarities between the logically prior conceptions of paradigms and world-pictures. In the case of Kuhn, this is restricted to scientific practice, in Wittgenstein's, the scope is more general, encompassing everyday life. In both, this priority is difficult or impossible to express in propositions as it indicates an ungrounded way of acting, inherited from a community. The ways of acting are not eternally immutable, but they change more slowly or more rarely than the practices that they govern. Some of these ways of acting are more deeply embedded than others and are less prone to change.

§4.6 poses two questions following from the comparisons made above. What happens when, for whatever reason, one of the established bases or hinges that constitute a paradigm or a world-picture is cast into doubt? Metaphorically, we can think of this as an instance when part of the riverbed is washed up and deposited elsewhere. In literal terms, just what happened when something like the certainty that no one could ever visit the Moon changed, or when Corpuscularianism gave way to modern atomic theory?

The second question stems from the non-rational manner in which we acquire certainties, and the consequence that they cannot be expressed or justified in the manner of an ordinary empirical proposition. It has already been noted that changes to certainties do not happen immediately and in a flash across the entire community that holds them. How, then, do such changes happen in individuals, if standard, rational means of argumentation are unavailable in these cases, and how might we go about convincing someone to change their deepest-held convictions? As we will see, Kuhn and Wittgenstein have remarkably similar things to say about these processes, as both emphasise the non-rational aspects of such conversions. In the following sub-section, we will draw parallels between Kuhn's concept of scientific crisis and Wittgenstein's use of the word 'chaos' (OC §613). In the §4.6.2, we will explore what Kuhn and Wittgenstein mean when they suggest that non-rational means of persuasion are

needed to effect a conversion. By demonstrating these parallels, we can introduce the concept of incommensurability to world-picture considerations in §4.7.

4.6.1 *Chaos and crisis*

A period of crisis in science was in §4.2 defined as happening when the prevailing paradigm fails to account for one or more observed phenomena. It occurs, says Kuhn:

> with the awareness of anomaly, i.e., with the recognition that nature has somehow violated the paradigm-induced expectations that govern normal science. It then continues with a more or less extended exploration of the area of anomaly. And it closes only when the paradigm theory has been adjusted so that the anomalous has become the expected (SSR, p. 53).

When an anomaly that cannot be explained by the current paradigm comes to light, there are three possibilities for resolution: 'sometimes normal science ultimately proves able to handle to handle the crisis-provoking problem'; occasionally, the problem is deemed irresolvable, and the particular field of research is deemed to have reached a dead end; finally, revolution occurs, and a new paradigm is proposed, and there ensues a 'reconstruction of the field from new fundamentals . . . [changing] the field's most elementary theoretical generalizations as well as many of its paradigm methods and applications' (SSR, p. 84-5).

It is the last of these three possibilities with which Kuhn is primarily concerned in *The Structure of Scientific Revolutions*, the revolutionary possibility. When the established bases of a field, the 'fundamentals' of a paradigm as Kuhn puts it – either methodologies or quasi-metaphysical commitments – can no longer provide a structure within which explanations of anomalous phenomena can be produced, crisis ensues. Kuhn examines a famous case of anomalies leading to crisis and thence to a

paradigm shift: the movement from Ptolemaic to Copernican astronomy.[183] Ptolemaic astronomy, for a millennium and half, was 'admirably successful in predicting the changing positions of both stars and planets' (SSR, p. 68). Its success was furthered by later astronomers' ability to add complexity in order to accommodate what were initially seen as minor discrepancies between the model's predictions and their actual observations. As Kuhn notes in *The Copernican Revolution*, 'Ptolemy's successors added epicycles to epicycles and eccentrics to eccentrics, exploiting all the immense versatility of the Ptolemaic technique.'[184]

Eventually, however, the anomalies built up and were widely recognised, partly because the instruments used for observing the night sky became more advanced, and partly because the spread of printing improved scientists' ability to communicate and compare results.[185] It became clear that the puzzle-solving capabilities of the Ptolemaic model had fallen behind the capabilities of up-to-date observation methods. The Ptolemaic predictions were increasingly shown to be inaccurate, and the contortions of scientists in their attempts to accommodate these anomalies within the existing paradigm ever more complex and unsatisfactory. A period of scientific crisis developed, ending only when Copernicus' heliocentric model gained widespread favour.[186]

For our purposes, the key understanding is that an anomaly exists only in relation to a paradigm, never in isolation. Without the Ptolemaic paradigm (or another similar set of established bases) to govern what astronomers expected to see, there would have been no anomalies, only observations without a framework. When compared with

[183] Kuhn also examines the crises following discovery of irreconcilable anomalies in relation to phlogiston theory leading to Lavoisier's discovery of oxygen (pp. 70-2) and the shift from Newtonian to Einsteinian mechanics (pp. 72-74). That there is a wealth of historical evidence is important to Kuhn's case, and worth recognising. However, the Ptolemaic-to-Copernican shift is by far the easiest to understand, and therefore the only one used for this illustration.
[184] Kuhn (1990), p. 73.
[185] Kuhn (1990), pp. 68-9.
[186] Sharrock and Read suggest three compelling reasons for the delay in rejecting the Ptolemaic model: 'no one had proposed a comparably impressive alternative'; the Ptolemaic scheme was 'interwoven with the mightily prestigious physics of Aristotle'; and 'the anomalies seem[ed] to require only minor – albeit elusive – modifications to accommodate them'. Sharrock and Read (2002), p. 74.

Wittgenstein, this point is of great importance. It is when a certainty of our world-picture is questioned that Wittgenstein thinks chaos ensues. Certainties do not exist in isolation. There are several things about which we are certain, revealed in the way we act, and these form the 'scaffolding of our thoughts' (OC §211). If we remove a piece of the scaffolding, the whole structure is liable to fall apart:

> [W]hat could make me doubt whether this person here is N.N., whom I have known for years? Here a doubt would seem to drag everything with it and plunge it into chaos (OC §613).

Doubting something like recognising a friend whom one has known for years calls into question far more than a person's identity. Recognising a friend is an everyday activity, and we might think of it as requiring several certainties or convictions in order for us to rely on it so readily. Whilst these are not easily expressed, we might include convictions regarding: our own memory; reliance on one's own sensory apparatus; the memory of our friends; that humans' appearances do not spontaneously change so that what seems to be my friend is in fact someone altogether different; the custom of naming; and so on. Doubting whether a friend whom I have known for years really is the person I think him to be is not like doubting whether this book I am holding is mine or someone else's.

An event like this is comparable with an anomaly in Kuhn's terminology. The anomaly might be seamlessly absorbed into the old world-picture. Perhaps it turns out that I have for the first time encountered my friend's identical twin of whose existence I was unaware, or that I have unwittingly ingested a hallucinogen, or someone is testing out an experimental hologram using my old friend as a model and I have subconsciously noticed some small discrepancy. Failing a mitigating circumstance like this, though, my whole system of judging and perceiving is thrown into doubt.

To illustrate this point, recall again Stroll's concept of negational absurdity and consider what would actually happen were you to doubt the identity of a friend you have known for years. At first, your questioning and uncertainty might be taken as a very poor joke. If persisted with, concerns would likely be raised about your mental

health, or whether you were intoxicated. If you could brush off the attentions of your supposed friend and go someplace else, how would your other actions be affected? You would probably begin to doubt your own identity, or where you lived and all manner of other usually commonplace and unremarkable aspects of your life. If a doubt like this is sincere, chaos ensues in every aspect of one's life.[187]

For Wittgenstein, the denial of something so certain as this is absurd, an aberration rather than a mistake, and leads to chaos. Kuhn, discussing the domain of highly specialised scientific research, speaks of an academic crisis and an uncertainty regarding to what our best scientific theories ought to reduce (for example, corpuscles or atoms; a heliocentric or a geocentric model of the solar system). Crisis and chaos are both induced by anomaly. Both demand an amendment to – or complete overhaul of – the existing paradigm/world-picture to remedy the anomalous phenomenon.

4.6.2 *At the end of reasoning comes persuasion*

When anomalies build up, the old paradigm becomes less and less attractive. Several nascent paradigms, seeking to explain the anomalous phenomena as well as retaining much of the explanatory power of the old paradigm, may well emerge, competing, via their respective supporters, for supremacy. Kuhn provides an example of this phenomenon when he notes that due to 'the rise of pneumatic chemistry and the question of weight relations' the standard analysis of the composition of air prevalent before the mid-eighteenth century became unsatisfactory (SSR, p. 70). However:

> [b]y the time Lavoisier began his experiments on airs in the early 1770's, there were almost as many versions of the phlogiston theory as there were pneumatic chemists. That proliferation of versions of a

[187] That the example of Wittgenstein's is localised is not a problem, partly because it is only an illustration, but also because Kuhn, too, notes that not all crises are comprehensive cross the whole of science. For instance, he notes paradigm shifts 'somewhat smaller' than the Ptolemaic to Copernican because they were 'more exclusively professional' – i.e. related to a specialised branch of science – like the 'wave theory of light, the dynamical theory of heat, or Maxwell's electromagnetic theory' (SSR, p. 66).

> theory is a very usual symptom of crisis. In his preface, Copernicus complained of it as well (SSR, p. 70-1).

During a period of crisis like this, scientists do not automatically 'renounce the paradigm that has led them into crisis,' for 'the decision to reject one paradigm is always simultaneously the decision to accept another' (SSR, p. 77). It is not the anomaly alone, and the original paradigm's comparison with the world that makes scientists renounce an old paradigm. The decision to adopt a new paradigm over the old one 'involves the comparison of both paradigms with nature *and* with each other' (SSR, p. 77).

Kuhn terms the response to a period of crisis precipitated by the discovery of unaccountable anomalies as revolutionary science. He justifies the use of the metaphor by comparing the process to that of political revolutions. Although there are 'vast and essential differences between political and scientific development', both are 'inaugurated by a growing sense, often restricted to a segment of the political community, that existing institutions have ceased adequately to meet the problems posed by an environment that they have in part created' (SSR, p. 92).

Kuhn also notes that what counts as a revolution may depend on one's perspective; events often only seem revolutionary to those affected by them. Thus, just as 'the Balkan revolutions of the early twentieth century [to outsiders] seem normal parts of the developmental process,' to astronomers the discovery of X-rays could be taken 'as a mere addition to knowledge, for their paradigms were unaffected by the existence of the new radiation' (SSR, p. 93). On the other hand, 'for men like Kelvin, Crookes, and Roentgen, whose research dealt with radiation theory or with cathode ray tubes, the emergence of X-rays necessarily violated one paradigm as it created another' (SSR, p. 93). This example further justifies Kuhn's earlier claim that he does not wish 'to imply that normal science is a single monolithic and unified enterprise that must stand or fall with any one of its paradigms as well as with all of them together' (SSR,

p. 49). Therefore the process of persuasion leading to a paradigm shift need not occur simultaneously across all scientific fields.[188]

We must also be wary, as Kuhn noted thirty years after *The Structure of Scientific Revolutions* in *The Road Since Structure*, of 'treating groups or communities as though they were individuals-writ-large.'[189] Looking back, historians 'regularly experience as a single conceptual shift a transposition for which the developmental process required a series of stages.'[190] The rejecting of an old paradigm in favour of a new one happens to individuals. Whilst we might, in hindsight, wish to characterise the shifted allegiances of a number of individuals as a group shift *en masse*, this can blur the incremental nature of the process. Whilst Kuhn uses the term 'gestalt switch', he recommends that we consider it to be metaphorical, and to pay attention to the 'microprocesses by which change is achieved.'[191] We must note, therefore, that whilst retrospectively we might characterise a community as having undergone a paradigm shift or a revolution, this is an amalgamation of several individuals' persuasion and conversion.

To illustrate the nature of revolutionary science, Kuhn draws further parallels with political revolutions. Take two or more 'competing parties or camps, one seeking to defend the old institutional constellation, the others seeking to institute some new one' (SSR, p. 93). Ultimately, because 'they acknowledge no supra-institutional framework for the adjudication of revolutionary difference, the parties to a revolutionary conflict must finally resort to the techniques of mass persuasion, often including force' (SSR, p. 93). Three things are revealed here. First, there are significant similarities in the way Kuhn has characterised the evolution of sciences with that of politics. Second, although the use of force is generally impermissible and probably rare in scientific conflict, we must note the non-rational behaviour that comprises part of the persuaders' armoury.[192] Finally, we should note the lack of

[188] We'll return to this idea in relation to world-pictures in §6.3 with the introduction of the concept of restricted domains.
[189] Kuhn (2000), p. 88.
[190] Kuhn (2000), p. 88.
[191] Kuhn (2000), p. 88.
[192] In a footnote, Kuhn mentions a case of a scientist's reputation – a decidedly non-rational consideration – affecting the degree to which his work received influence and

acknowledgement of any supra-institutional framework. This applies equally for scientific revolution, and has important consequences. For when 'paradigms enter, as they must, into a debate about paradigm choice, their role is necessarily circular. Each group uses its own paradigm to argue in that paradigms' defense' (SSR, p. 94).

The established bases that make up a paradigm have been characterised as being to a large degree ineffable and ultimately unjustifiable. With no higher arbiter for adjudication, reasoned argumentation has nowhere to turn. Kuhn explicitly makes this very point: 'The superiority of one theory to another is not something that can be proved in the debate. Instead . . . each party must try, by persuasion, to convert the other' (SSR, p. 198). That is not to say that reasons are not given. Kuhn is not suggesting that when an area of science enters a period of crisis scientists abandon their logical methods and engage in pure propaganda. However, whatever the arguments put forward, 'the competition between paradigms is not the sort of battle that can be resolved by proofs' (SSR, p. 148). One needs to undergo a conversion in order to find the arguments as compelling as they are for those already within the paradigm.[193]

What, though, does a conversion of this sort amount to? Consider again the starting point for this chapter: Wittgenstein's pronouncements in 1950 on the impossibility of space travel compared with the contemporaneous account of Sir Patrick Moore's and a handful of other astronomers' convictions that it was not out of the question. Had Wittgenstein lived another twenty years, he would doubtless have altered his conviction. Although he did not have the opportunity to examine this particular case of world-picture conversion retrospectively – and thereby compare competing world-views – he presents a fictional one of his own:

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dissemination: 'For the role of reputation, consider the following: Lord Rayleigh, at a time when his reputation was established, submitted to the British Association a paper on some paradoxes of electrodynamics. His name was inadvertently omitted when the paper was first sent, and the paper itself was at first rejected as the work of some "paradoxer." Shortly afterwards, with the author's name in place, the paper was accepted with profuse apologies (R. J. Strutt, 4th Baron Rayleigh, *John William Strutt, Third Baron Rayleigh* [New York, 1924], p. 228)' (SSR, p. 153, fn. 10).

[193] Cf. SSR, p. 94.

> Men have believed that they could make the rain; why should not a king be brought up in the belief that the world began with him? And if [G.E.] Moore and this king were to meet and discuss, could Moore really prove his belief to be the right one? I do not say that Moore could not convert the king to his view, but it would be a conversion of a special kind; the king would be brought to look at the world in a different way. Remember that one is sometimes convinced of the correctness of a view by its simplicity or symmetry, i. e., these are what induce one to go over to this point of view. One then simply says something like: "That's how it must be." (OC §92)

Here, we are presented with two world-pictures. Ostensibly, these are the king's and Moore's, but in fact these represent the king's whole community of subjects on the one hand, and our familiar Western world-picture on the other.[194] We hold it as a very deep conviction that the Earth (or world) is very old. No one has needed to tell us this explicitly, but it is bound up in the education we have inherited. We talk about our ancestors, investigate historical, archaeological, or paleontological sites, and debate causes and effects of political machinations past. Everything in our lives reveals our conviction that the Earth is very old. Whilst it is hard to imagine just what the king's world-picture or particular certainty about the origin of the Earth might be like, it must be relatively free of troubling anomalies. We would also expect, as with any certainty, for the king to struggle to articulate or justify his conviction, despite being just as sure in them as Moore is in his. Risible as we might find the king's convictions, he would doubtless respond to Moore's claims with equal incredulity.

The tactic Moore ought to take perhaps seems at first relatively straightforward. Surely he can just point to some things obviously older than the king is himself, and the king could not help but be persuaded by the logic of Moore's arguments. The difficulty in such cases, though, is that their respective notions of logic radically differ. A world-picture is logically prior to the investigations that happen within it,

[194] As we will see in Chapter 6, there may well be no such thing as a homogeneous Western world-picture. Nonetheless, for the purposes of this particular discussion it does no harm to use the term. Enough of the deeper aspects of the rivberbed (OC §§97-99, and q.v. §2.6 of this thesis) are held in common to justify the use of the phrase here.

and Moore, were he to proceed along such a line of argumentation, would be arguing from the position of his own world-picture and therefore his own logic. As Kuhn points out in relation to paradigm conflict, '[e]ach group uses its own paradigm to argue in that paradigms' defense' (SSR, p. 94). The king, evidently, has been indirectly inculcated with a system of logic whereby he can make the same observations as Moore but draw very different conclusions, all of which accord with his own world-picture.[195]

In the absence of any supra-world-picture arbiter, Wittgenstein, does not think Moore could 'prove his belief to be the right one' (OC §92). Instead, considerations of 'simplicity or symmetry' will have a role if the king is to be converted. Kuhn makes a similar point, remarking that 'even today, Einstein's theory attracts men principally on aesthetic grounds, an appeal that few people outside of mathematics have been able to feel' (SSR, p. 158). Simplicity and symmetry are aesthetic, not rational, considerations. So persuasion involves presenting something appealing without recourse to logic and reason. Logical arguments might be the vehicle of such aesthetic considerations – as in the case of Einstein mentioned by Kuhn, perhaps the elegance contained within the mathematical proof – but the arguments themselves are not the persuading force. In a separate passage, Wittgenstein considers the same idea again:

> I can imagine a man who had grown up in quite special circumstances and been taught that the earth came into being 50 years ago, and therefore believed this. We might instruct him: the earth has long... etc. - We should be trying to give him our picture of the world. This would happen through a kind of persuasion (OC §262).

[195] If the king's world-picture seems outlandish, we would do well to draw parallels between the king and modern Creationists who, on what they claim to be a literal interpretation of the Christian Bible, declare the Earth to have been created by God within the last 10,000 years. All artefacts that we might point to as evidence for our world-view are taken equally as evidence by the Creationists for God's existence and his wish to test our faith. The same evidence appears rather different depending on the logical structure – i.e. the certainties and world-picture – with which one approaches it. It is worth nothing that Creationists make up a sizeable proportion of Christians, particularly in North America. Not that we ever should do such a thing, but writing them off as a deluded minority sect is clearly inappropriate.

We would not be trying to convince this man – call him the same king from OC §92 – of a proposition. It is not that the king and Moore disagree on an ordinary empirical propositions, but rather than they have different world-pictures. Moore, if he is to convert the king, would be neither trying to change the king's mind on a proposition, nor to shift the king's conviction on a single certainty. He would be 'trying to give him our picture of the world', to effect a *gestalt* switch or conversion that might encompass most or even all of his certainties.

The language used here – of persuasion and conversion – is markedly religious in tone. Wittgenstein compares the conversion process with 'what happens when missionaries convert natives' (OC §262). The following passage from Kuhn reveals a similar theme:

> The man who embraces a new paradigm . . . [must] have faith that the new paradigm will succeed with the many large problems that confront it, knowing only that the older paradigm has failed with a few. A decision of that kind can only be made on faith (SSR, p. 158).

Further, says Kuhn, 'men have been converted by [personal and inarticulate aesthetic considerations] at times when most of the articulable technical arguments pointed the other way' (SSR, p. 158). This is sometimes a necessary feature of driving the progress or uptake of a new paradigm. If a new idea is to gain ground and compete for paradigm status, 'it must first gain supporters, men who will develop it to the point where hardheaded arguments can be produced and multiplied' (SSR, p. 158).

Until such a conversion can take place, however, there is an impasse, whereby Moore's arguments by the power of their logic alone will do nothing to persuade the king, and vice versa. The conversion in question is about the very 'scaffolding of our thoughts' (OC §211). The question of what is to count as evidence, correct methodology, rules of inference, or 'an adequate test of a statement belongs to logic' (OC §82). What counts as our system of logic comes down to 'an ungrounded way of acting' (OC §110). If the king – or anyone – is to be converted, significant parts of his everyday practices must change. He could not go on as before. For the scientist who undergoes a paradigm shift, his apparatus, language, methods of experimentation, and

ultimately the fundamental constituents to which he seeks to reduce his theories must change. A conversion entails that one's life changes, not one's mind on a single, empirical proposition.

4.7 Incommensurability introduced

In the next chapter, the focus will be on what is happening when attempts at conversion take place. In particular we are concerned with what sorts of obstacles might stand in the way of conversion, and even more specifically the nature of linguistic concerns that might hinder communication between members of two or more world-pictures. Kuhn, in relation to paradigms, refers to these as 'incommensurable ways of seeing the world and of practicing science in it' (SSR, p. 4). Although unfamiliar at the moment, we can acquire a sense of what the term means from the context of Kuhn's claim that the 'normal-scientific tradition that emerges from a scientific revolution is not only incompatible but often actually incommensurable with that which has gone before' (SSR, p. 103).

In relation to Moore and the king, were a conversion to happen, we would think of the king's post-conversion life and practices as incommensurable with his life and practices pre-conversion. Thinking of incommensurability as being along the lines of incompatibility, despite Kuhn's warning, is a good place to start. The next chapter will explore this concept further to understand just why Kuhn draws the distinction he does. We will largely from this point on, though, leave Kuhn to one side. This chapter has drawn several parallels between Wittgenstein's and Kuhn's respective concepts of the world-picture and the paradigm, with the aim of preparing the ground for the use of the incommensurability concept in relation to Wittgenstein's thought on conflict of world-pictures.

The next chapter will take up this challenge, beginning by going deeper into the analogies already drawn between world-pictures and aspects of religious faith and conversion. Wittgenstein made repeated use of religious examples, particularly in the *Lectures and Conversations on Aesthetics, Psychology, and Religious Belief*. Religious world-pictures provide easily recognisable and distinguishable templates of world-pictures, and are therefore ideal for the early stages of exploring the idea of incommensurability.

Conclusions

This chapter has developed links between *The Structure of Scientific Revolutions* and *On Certainty*. In the broadest terms, Kuhn's anti-essentialist stance towards science mirrors Wittgenstein's towards language. However the similarities run deeper than an anti-essentialist approach. Kuhn and Wittgenstein make liberal use of examples, which not only illustrate the points they are making but actually constitute them as well. On this point, I differed with Bird (2000) and Sharrock and Read (2002) – who both saw the examples presented by Kuhn as primarily illustrative – but aligned my position more closely with Kindi's (1995, 2005), though she perhaps does not emphasise this point enough either.

The use of examples presents the chance for a perspicuous representation of the material, enabling us to see dissimilarities and similarities between paradigms, and providing a method for combating our craving for generality. Perspicuous representation of his historical examples allowed Kuhn to note the lexical discrepancies between different theories. A term such as 'mass' may well have a different meaning in different scientific traditions, for example in Newtonian and Einsteinian physics. Kuhn's point that the different meanings can only be recognised with an awareness of the contexts in which the word is used finds great sympathy in Wittgenstein's treatment of meaning in *Philosophical Investigations*.

Rules play an essential role for Wittgenstein and Kuhn. Both make three central claims about rules. They a) reject a more traditional assumption that these rules are somehow metaphysically real, absolute, and mind-independent, b) describe them as being established by practice and custom, and c) describe them as governing human activities, but with variation in rules across different communities. They also both distinguish the rules that govern everyday or scientific practice from the logically prior world-picture or paradigm, and their constituent certainties or established bases.

Three preliminary parallels were drawn between *On Certainty* and *The Struture of Scientific Revolutions*. Having established a world-picture or paradigm as both logically prior to rules and investigations and composed of ungrounded ways of acting, their conclusions about the nature of these ways of acting are remarkably

similar. Both hold that they are: difficult to formulate into propositions; unjustifiable, partly because they are not propositional, and partly because we learned them only indirectly in the first place; and that, whilst not immutable, they are slower and less prone to change than that for which they delimit the logical possibilities.

Finally, the twin themes of crisis and persuasion were introduced. Anomalies that cannot be accounted for precipitate scientific crisis, whereupon new paradigms vie for superiority via their supporters. As there can be no objective grounds for arbitrating between competing paradigms – and their constituent parts were not acquired and cannot be expressed propositionally – rational grounds give out. At this point, both Kuhn and Wittgenstein emphasise that it is non-rational persuasion and a measure of faith that can effect a conversion. Neither world-pictures nor paradigms can be decided upon fully rationally. Such a conversion has widespread effects upon one's life, be it in everyday actions for the king, or one's experiments and investigations for a scientist. The term 'incommensurability' has been introduced in relation to paradigm or world-picture conflict, awaiting fuller exploration in the following chapter.

Chapter 5 – Incommensurability

5.1 Making Use of Kuhn

Chapter 4 expanded on the concept of the world-picture by drawing parallels with Kuhn's idea of the paradigm. This process clarified the nature of the world-picture by providing real-world analogies – Kuhn's paradigms – and introduced situations in which world-pictures change and come into contact with one another. Incommensurability is Kuhn's term for the situation when paradigms are – roughly speaking – incompatible with one another. This chapter explores the concept further, first by creating examples of incommensurability in relation to Wittgenstein's thought on religious belief, and then progressing to a detailed examination of just what incommensurability entails for communication and conversion.

Although there is no suggestion from either Kuhn or Wittgenstein that persuasion and conversion are necessary aspects of a response to world-picture or paradigm clash – the opposing parties may simply decide to drop the dispute and go their separate ways

– both agreed that a rational proof of the validity of any such system of reference is impossible.[196] That both talk about conversion – as opposed to proof – indicates recognition of the importance of non-rational persuasion, demonstrating clear parallels with religious conversion.

Wittgenstein does not use the term 'incommensurable', or any derivative thereof. However his remarks in *Culture and Value* and *Lectures and Conversations on Aesthetics, Psychology and Religious Belief* about there being a lack of genuine conflict between the believer and the non-believer can be related to Kuhn's use of the concept in the sense that Kuhn speaks of different paradigms talking 'always slightly at cross-purposes' (SSR, p. 112). In the previous chapter, Kuhn's established bases of a paradigm were likened to the certainties of a world-picture. In this chapter, in §5.2, we will undertake the same process for religious world-pictures.

Wittgenstein's conception of a genuine religious belief requires some investigation. In various writings he demonstrates an affinity with Kierkegaard and Tolstoy, emphasising that a genuine religious belief requires 'a passionate commitment to a system of reference [*Bezugssystem*]' (CV p. 73), one that informs and guides all of one's deeds. Parallels will be drawn between Wittgenstein's conception of a world-picture in general as the 'scaffolding' (OC §211) of our thoughts and his understanding of a true religious belief which might contain something like a conviction in the Last Judgement. Such a conviction provides 'guidance for [the believer's] life . . . Whenever he does anything, this is before his mind' (LC, p. 53). The fact that such propositions like 'I believe in the Last Judgement' are expressed by believers – and are apparently received without confusion or concern – might at first lead us to the conclusion that these cannot play the role of certainties of a religious

[196] A note on terminology: We use 'clash' to indicate two or more incommensurable world-pictures coming into contact with one another; for example, a Christian meeting an atheist in a context in which the differences in their world-pictures are apparent. 'Conflict' will be used in a specialised way, as will become clear when we address Wittgenstein's non-conflict position in the case of, for example, propositions of religious belief. Conflict between propositions can only occur when there is broad agreement in a world-picture. When a Christian and an atheist discuss, for example, whether there will be a Last Judgement, there is not genuine conflict, because it is certainties – not empirical propositions – that are clashing. §5.3 will address this concern and make clearer the distinction outlined here.

world-picture, given the claim made in §2.3.3 that they tend to sound absurd. Wittgenstein's claim that such propositions arrive as the culmination of a form of life (LC, p. 58) coupled with his non-conflict position on religious language will be explored and will resolve this apparent tension. The non-conflict position will be explained as indicating incommensurability between two world-pictures.

From §5.3 onwards we will take up the challenge of fully explicating Kuhn's concept of incommensurability. Having already drawn parallels between paradigms and world-pictures and now in §5.2 having introduced religious aspects of world-pictures, we have plenty of material from which to draw examples. Some commentators of Kuhn have claimed incommensurability to entail total untranslatability, a position that will here be referred to as radical incommensurability. A parallel of this view is what has been called Wittgensteinian fideism, which precludes any meaningful communication with members of any form of life of which one is not an active participant.[197] This position will be contrasted with what will be called weak incommensurability, which entails unproblematic communication across all world-pictures. Both these positions will be rejected, and in §5.4 a more nuanced, moderate, and dynamic interpretation of incommensurability will be proposed. Dynamic incommensurability will build on the suggestion by Wang (2007) that speakers of different languages – and for reasons that will become clear we extend this beyond natural languages to linguistic differences created by different world-pictures – can engage in dialogue via a constant back-and-forth movement, establishing similarities and points of contact.

On the dynamic interpretation, incommensurability will be shown not to entail total untranslatability. Instead, the possibilities for communication between adherents of two world-pictures will be argued to be flexible, depending primarily on the similarity of the two world-pictures in a state of clash.[198] Where the world-pictures bear more in

[197] The original formulation of Wittgensteinian fideism uses form of life. §5.3, drawing on Chapter 3, will explain why we are justified in substituting world-picture for form of life in some instances.

[198] There are other factors in the possibilities for communication, but these are usually less influential than the similarity of the world-pictures in question. I will gesture towards these other factors where appropriate, but the focus will remain on world-pictures throughout.

common with each other in terms of practice – and, consequently, in terms of vocabulary – there will be a greater degree of possible communication. In cases where there is a greater possibility of meaningful cross-world-picture communication, the task of locating the exact points of irreducible clash will be easier and more precise.

5.2 Wittgenstein and religious belief

Although it is Wittgenstein's philosophy rather than his life that is under consideration here, knowledge of a few aspects of his biography sets the scene for our understanding of his thought on religious belief, particularly as he wrote very little technical philosophy explicitly about it. Wittgenstein's obsession with Tolstoy's *The Gospel in Brief*, reading it in the trenches of World War I and regularly making gifts or recommendations of it to friends, informs us of a great deal about his conception of what proper religious belief is like.[199] Central to Wittgenstein's conception is that religious belief must affect all aspects of one's life, and not be reduced to philosophical arguments or dutifully attending church. Tolstoy wrote the book – a reinterpretation of the four New Testament gospels to include only the words and actions of Jesus, and no dogma or scripture propounded by the organised church – with the aim of dispensing with all the arguments for faith, and presenting 'a solution of the problem of life, and not of a theological or historical question.'[200] One phrase of Tolstoy's reinterpretation in particular bears significant echoes of Wittgenstein's own words: 'Do not believe this, but change your life.'[201]

Reducing religious belief to philosophical arguments was an approach Wittgenstein particularly reviled. For example, Wittgenstein, in conversation with Drury, criticised Father Coplestone for his part in a radio debate with A.J. Ayer on the existence of God as having 'contributed nothing to the discussion at all', as he attempted to 'justify the beliefs of Christianity with philosophical arguments.'[202] Similarly, in *Culture and Value*, Wittgenstein said that 'If Christianity is the truth, then all the philosophy about it is false' (CV p. 89). These biographical remarks demonstrate his hostility to the sort of religious belief constituted solely by attending church and producing rationalisations. If Wittgenstein's personal idea of religious belief is somewhat austere – in the sense that it seems implicitly to criticise self-declared believers who lack what he calls a passionate commitment – it is nonetheless important to our

[199] See Monk (1990), pp. 115-7, 132, 136, 213.
[200] Tolstoy (2008), p. 7, Author's Preface, and also pp. 22, 44, 47-8.
[201] Tolstoy (2008), p. 26. Compare this with CV p. 61: 'I believe that one of the things Christianity says is that sound doctrines are all useless. That you have to change your *life*. (Or the direction of your life.)'
[202] Monk (1990), p. 453.

understanding of what Wittgenstein would consider to be a religious world-picture or frame of reference.[203] Belief in religious propositions alone does not entail the sort of religious belief that Wittgenstein considered to be authentic.[204]

5.2.1 *The Last Judgement*

In his writings on religion, Wittgenstein frequently used the example of someone declaring their belief in the Last Judgement. This example demonstrates what we will refer to as Wittgenstein's non-conflict position on religious belief:

> Suppose that someone believed in the Last Judgement, and I don't, does this mean that I believe the opposite to him, just that there won't be such a thing? I would say: 'Not at all, or not always.'
>
> If some[one] said: 'Wittgenstein, do you believe in this?' I'd say: 'No.' 'Do you contradict the man?' I'd say: 'No.'
>
> Would you say: 'I believe the opposite', or 'There is no reason to suppose such a thing'? I'd say neither (LC, p. 53).

Wittgenstein's claim that he neither states the opposite – at least not always – nor contradicts the man seems odd. Were the same construction of proposition and response drafted in other circumstances, we would expect contradiction. Consider,

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[203] Indeed, I would say that it is extremely difficult fully to grasp Wittgenstein's conception of religious belief without having read *The Gospel in Brief* – a book impossible to paraphrase at all, let alone in a footnote – and there are deep parallels to be drawn regarding an insistence not to look everywhere for proofs (see for example Tolstoy, 2008, pp. 56, 75). However, a deeper discussion of Wittgenstein's association with this book would be beyond the remit of this thesis. References to it will occasionally be made throughout this chapter where pertinent. For an excellent discussion of Wittgenstein's religious beliefs in relation to his own philosophy and to Tolstoy, see Plant (2004).

[204] Wittgenstein was deeply influenced by Kierkegaard on this point: 'Wisdom is passionless. By contrast Kierkegaard calls faith a *passion*' (CV, p. 61). Cottingham also notes that 'Wittgenstein shared with Kierkegaard the view that passionate commitment is central to what makes someone religious.' Cottingham (2013), p. 5.

instead of belief in the Last Judgement, a proposition like 'I believe that NASA will put a human on Mars before 2050'. I might believe the same or the opposite, accord with or contradict the man who said this statement. Like the example of the Last Judgement appears to be, this example is concerned with a future event about which each person makes a prediction. However, Wittgenstein thinks that something else is going on in the example of the Last Judgement, and he explores the idea again in a later passage on the same page:

> Suppose you were a believer and said: "I believe in a Last Judgement," and I said: "Well, I'm not so sure. Possibly." You would say that there is an enormous gulf between us. If he said "There is a German aeroplane overhead," and I said "Possibly. I'm not so sure," you'd say we were fairly near (LC, p. 53).

Differing on the Last Judgement is nothing like differing on something straightforwardly empirical, like the nationality of an overhead aeroplane or the future winner of an election. There is a 'gulf' between the believer and the non-believer. On deciding on the nationality of the aeroplane, both agree exactly what sort of evidence would count in favour or against the proposition that it is German. Perhaps a different angle as it flies over will afford a clearer view of the tail fin and its markings. The standards for what counts as evidence, and roughly how much evidence is required to change one's mind, is agreed upon by both parties. Wittgenstein and the other person are 'fairly near'.

The gulf between Wittgenstein and his friend on the topic of the Last Judgement exists because their respective standards of enquiring and asserting differ. Although propositions are put forward – 'I believe in the Last Judgement' and 'No, (I don't believe in the Last Judgement)' – in neither case do they function as genuine propositions. As Wittgenstein notes, 'Anything that I normally call evidence wouldn't in the slightest influence me here' (LC, p. 56). The believer has taken his belief in the Last Judgement as 'guidance for this life . . . Whenever he does anything, this is before his mind' (LC, p. 53). It has the function of a rule for the believer, and rules are neither true nor false.

The remark that the Last Judgement provides guidance for his life prefigures *On Certainty*'s themes of certainties providing the 'scaffolding of our thoughts' (OC §211) and the 'foundation for all judging' (OC §614).[205] Wittgenstein denies that he and the believer contradict each other because their expressions are not genuine propositions. They instead indicate their different frames of reference. Differences in their deepest convictions, their certainties, are revealed, and certainties are not 'subject to testing' (OC §162). 'There will be a Last Judgement' is a certainty for the believer. It is not subject to standards of proof, enquiring, and asserting for belief in the Last Judgement sets those very standards.

Why, though, does Wittgenstein equivocate when asked whether he contradicts the man, and say 'Not at all, or not always'? If he does hold a non-conflict position, why does he not do so consistently? We ought to consider the multiplicity of uses for such a sentence. In the case described here, genuine propositions are not being put forward because the expression reflects a non-epistemic certainty. We could, though, imagine circumstances in which such a proposition could be a genuine matter for empirical debate. For the 'same proposition may get treated at one time as something to test by experience, at another as a rule of testing' (OC §98). Recalling the reading encouraged in §2.5.2 regarding the propositionality or non-propositionality of hinges explains the equivocation. Wittgenstein is aware of propositional and non-propositional uses of an expression like 'I believe in the Last Judgement'. The former use occurs in cases where the context indicates that the Last Judgement is being debated as an accurate or inaccurate empirical prediction. The latter, non-propositional use indicates a certainty expressed by a believer.

There is, however, a further problem here. If such expressions are certainties, why do they not sound as peculiar as they do when a certainty like 'The Earth is very old' is expressed? The oddness of such expressions was a key factor in Wittgenstein's critique of Moore's knowledge claims in *On Certainty*. Yet, professions of belief in the Last Judgement are commonplace amongst religious believers, and their fellow believers do not think them queer or a joke, think the speaker insane, or become

[205] The *Lectures* were presented in 1938. See LC, Editor's Preface by Cyril Barrett.

confused (OC §§463, 467). Can such religious propositions really be indicators of certainties?

There are two components to dissolving this tension. First, even belief – that is, the ascription of a truth value – in apparently empirical religious propositions does not automatically entail what Wittgenstein considers to be religious belief. For Wittgenstein, 'sound [religious] doctrines are all useless . . . you have to change your *life*' (CV p. 61). Therefore it is not the case that whenever such a proposition is expressed it does indicate a religious certainty. Secondly, where such an expression does indicate a certainty, the propositions of religious belief are not arrived at in the form of a conclusion following the amassing and evaluating of evidence. They are instead the culmination of a form of life (LC, p. 58). These two points will be addressed in the following two sub-sections.

5.2.2 *Belief in religious propositions does not entail religious belief*

The first point – that one must change one's life for proper religious belief – finds its clearest expression in *Culture and Value*:

> Queer as it sounds: the historical accounts of the Gospels might, in the historical sense, be demonstrably false, & yet belief would lose nothing through this: but *not* because it has to do with 'universal truths of reason'! rather because historical proof (the historical proof-game) is irrelevant to belief (CV p. 32).

Even if the resurrection of Christ or prediction of the Last Judgement could be empirically proved false, religious belief (in, for example, Christianity) would lose nothing. Conversely, this understanding entails that simply because an individual holds to be true such seemingly empirical propositions, that individual does not automatically have a religious belief. This point is made explicitly by Wittgenstein elsewhere:

> Suppose, for instance, we knew people who foresaw the future; make forecasts for years and years ahead; and they described some sort of Judgement Day. Queerly enough, even if there were such a thing, and even if it were more convincing than I have described, belief in this happening wouldn't be at all a religious belief (LC, p. 56).

One might believe that Christ was a man who was resurrected two thousand years ago. One might also believe that there will one day be a final reckoning of all human lives in the form of a Last Judgement. One might even attend church regularly, express such doctrines, sing the psalms, and place coins in the collection pot. None of these actions or beliefs described above entails a religious belief. Further, propositions like 'Jesus was resurrected' do not amount to a religious – in particular a Christian – life. They do not automatically carry any edicts on how a person ought to live. It is this sort of religious life that Wittgenstein considers to be the only indicator of a truly religious belief. A Christian life is something that must be expressed through all of one's actions, not solely when engaging in the ritual and dogma of the organised church service:

> For a sound doctrine need not seize you; you can follow it, like a doctor's prescription.– But here you have to be seized & turned around by something (CV p. 61).

If religious belief is not to be like following a doctor's prescription, it must instead be something more like 'a passionate commitment to a system of reference [*Bezugssystem*]' (CV p. 73). A passionate commitment to a system of reference is not, presumably, something that can be picked up as one enters the nave and relinquished upon exit. If one is to orient one's life by it, the system of reference must have permanence in one's life.[206]

[206] When Wittgenstein heard that a student of his, Yorick Smythies, had converted to Catholicism, Wittgenstein wrote to him and acerbically declared: 'If someone tells me he has bought the outfit of a tightrope walker I am not impressed until I see what is done with it.' Monk (1990), p. 464.

5.2.3 *The propositions of religious belief are the culmination of a form of life*

§5.2.2 drew a distinction between, on Wittgenstein's terms, an authentic and an inauthentic religious belief. However, even an authentic believer might be found to express propositions like 'I believe in the Last Judgement.' If we are to maintain that such expressions indicate certainties, such expressions must be reconciled with the prior understanding that the expression of certainties tends to sound absurd.[207] Wittgenstein surely does not want to say that the propositions of religious belief are expressed in error; that would render him guilty of the same criticisms he charges Frazer with in the *Remarks on Frazer's Golden Bough*.[208] If religious propositions neither provide evidence for nor entail religious belief – i.e. their expression does not convert people on rational grounds – then what is their role, and why are they uttered at all?

Wittgenstein's insight lies in reversing the chronological roles of religious belief and religious propositions. Rather than religious belief being dependent upon and a consequence of positive truth-value ascription to the propositions, the propositions are instead the product of a religious life:

> Why shouldn't one form of life culminate in an utterance of belief in a Last Judgement? But I couldn't either say 'Yes' or 'No' to the statement that there will be such a thing. Nor 'Perhaps', nor 'I am not sure' (LC, p. 58).

The first sentence informs us that the form of life precedes the associated propositions.[209] A form of life is a network of ways of acting. A religious form of life – i.e. genuine religious belief – is a passionate seizing hold of a system of reference (CV p. 73), which provides a particular sort of guidance for acting. A system of reference (*Bezugssystem*) is something by which one can orient one's life, and some systems of reference – or aspects of them – are religious in nature. A person's

[207] Cf. OC §§348, 460-464. Also, see §2.3.3 of this thesis.
[208] Cf. RFGB, *passim*, and in particular p. 5.
[209] As we saw in Chapter 3, by the time Wittgenstein wrote *On Certainty*, he may well have formulated this in terms of the world-picture rather than the form of life.

acquisition of a system of reference 'is something you might [bring about] by means of a certain upbringing, shaping his life in such & such a way' (CV p. 97). Alternatively, someone could be converted to such a way of life.

Whilst religious scholars might construct proofs – for instance, Anselm's ontological argument – '[believers] themselves would never have arrived at belief by way of such proofs' (CV p. 97). Anselm was already a Christian when he constructed the ontological argument, and intended it to be a documentation of his own understanding of God, rather than an attempt to convert others through argument.[210, 211] He had a Christian world-picture that culminated in not just a proposition like 'I believe in the Last Judgement', but an argument for the existence of God, despite being already convinced of it himself. One's world-picture influences the way one perceives the world and acts in reaction to it. Wittgenstein considers this in relation to the Last Judgement:

> Suppose somebody made this guidance for this life: believing in the Last Judgement. Whenever he does anything, this is before his mind. In a way, how are we to know whether to say he believes this will happen or not? (LC, p. 53)

Whether or not the person in question takes the Last Judgement to be a true empirical prediction is irrelevant to its ability to guide their life. It here indicates something

[210] Regarding the ontological argument as set out in the preface to his *Proslogion*, Anselm said: 'I have written the following little treatise on this very conception and on certain others, as a person trying to raise his mind to the contemplation of God and seeking to understand that which he believes.' Anselm (1977), p. 365.

[211] Perhaps some people are persuaded to become religious by such arguments. Bertrand Russell, in his autobiography, claims that "I had gone out to buy a tin of tobacco, and was going back with it along Trinity Lane, when suddenly I threw it up in the air and exclaimed: 'Great God in boots!—the ontological argument is sound!" Russell (1967), p. 63. Russell credits this moment with turning him into a Hegelian rather than a Christian. Nonetheless, drawing on exposition earlier in this thesis, I would argue that he was persuaded of this position by its simplicity or symmetry, or other non-rational considerations. Russell notes that it was an argument espoused by J.M.E. McTaggart, also in Cambridge at the time and a firm Hegelian, who 'had a great intellectual influence' on his generation of young scholars, so perhaps personal considerations were at play. Russell later came to consider 'almost all Hegel's doctrines [to be] false.' Russell (1972), p. 730.

deeper, a genuine religious belief, providing structure and context to all their other actions, always before their mind in everything they do; an axis around which other activities turn (OC §152). A religious belief that holds permanence in someone's life plays the role of the 'scaffolding' (OC §211) of a believer's thoughts, 'the inherited background against which I distinguish between true and false' (OC §94), and 'the substratum of all my enquiring and asserting' (OC §162). Wittgenstein makes it quite clear, even in work preceding *On Certainty*, for example here in the *Lectures*, that he does not consider religious beliefs to be at all like ordinary beliefs:

> [O]ne would be reluctant to say: "These people rigorously hold the opinion (or view) that there is a Last Judgement". "Opinion" sounds queer.
>
> It is for this reason that different words are used: 'dogma', 'faith'.
>
> We don't talk about hypothesis, or about high probability. Nor about knowing.
>
> In a religious discourse we use such expressions as: "I believe that so and so will happen," and use them differently to the way in which we use them in science (LC, p. 57).

Wittgenstein draws a distinction between propositions regarding which we can talk about 'hypothesis . . . probability . . . [or] knowing' and religious expressions, for instance regarding the Last Judgement. If religious expressions are not opinions, views, hypotheses, or objects of knowledge, they seem very much like certainties, even if this distinction was not developed in his writing for another ten years. This point is clarified further when he notes that even though we use seemingly empirical propositions like 'I believe that so and so will happen', they are not used empirically, in the way that we would 'use them in science'.

In the *Remarks on Frazer's Golden Bough*, Wittgenstein regarded Frazer's principal mistake as deeming religious and magical practices to entail a scientific, empirical but false hypothesis on the part of the agent, such that magical/religious ritual *x* will produce desirable effect *y*. 'The characteristic feature of primitive man,' Wittgenstein responds, 'is that he does not act from *opinions* he holds about things (as Frazer

thinks)' (RFGB p. 12). Just as Frazer incurs Wittgenstein's scorn for criticising past practices as forms of bad science, full of erroneous empirical claims, we ought to avoid the same mistake in examining our contemporary religious or ritualistic practices. The expressions of religious belief do not belie opinions or knowledge. They are subject to standards of enquiring, asserting, and proof very different from science, and thus we tend to use different words, like 'faith' and 'dogma'.

Although Wittgenstein offers little explanation of why a religious belief might culminate in expressions that seem like empirical propositions, the comparison made with the *Remarks* may provide some clues. Propositions like 'I believe in God' appear in the Christian creed, in all major church denominations, as does some reference to the resurrection of Jesus in the form of a proposition in which the congregation express their belief. The formal, communal, and liturgical nature of the area of the form of life in which these propositions find their most common expression lends itself to a description of these propositions as being a crucial symbol of Christian ritual. In which case, we ought to note that a 'religious symbol does not rest on any *opinion*. And error belongs only with opinion' (RFGB p. 3). Whilst ritual alone does not constitute a genuine religious belief, it can still play a part in it.

The proper way to look at ritual, the *Remarks* suggest, is simply to say that it is a part of a form of life: 'We can only *describe* and say, "Human life is like that"' (RFGB p. 3). Wittgenstein discourages – for example Frazer's – attempts to impose a universal, explanatory theory or schema onto such phenomena. This perhaps explains his reluctance to further analyse his claim that they appear as the culmination of a form of life, for 'Every explanation is an hypothesis' (RFGB p. 3). Nonetheless, there is no reason to consider modern – for example, Christian – religious practices as any different from those with which Frazer was concerned: 'The religious action or the religious life of the priest-king are not different in kind from any genuinely religious action today, say a confession of sins' (RFGB, p. 4).[212]

[212] I take 'genuinely' here to mean a passionate seizing hold of a frame of reference, as opposed to a someone who attends the rituals but does not take from them guidance for his or her life. A good example of this distinction beyond *The Gospel in Brief* can be found in Wittgenstein's criticisms of Father O'Hara, whom he accuses of 'making it [i.e. religion] a question of science' (LC, p. 57). O'Hara tries to make his belief accord with scientific or empirical standards of reason, yet Wittgenstein 'would

Even if it appears as a part of Christian ritual, 'There will be a Last Judgement' is, for Wittgenstein, an expression a believer might find himself saying if he was the bearer of a genuine, Tolstoyan sort of faith, as part of a passionate commitment to a system of reference. Whereas Father O'Hara might introduce an identical expression as part of a philosophical argument for the existence of God – a proposition to be proved – it would not perform the same function as it would if Wittgenstein or Tolstoy or Dostoevsky uttered it, as the culmination of a truly religious form of life.[213]

With this understanding of the role such religious propositions play, the tension as to why they do not sound absurd when expressed can be resolved. Wittgenstein is not positioned against humans expressing truisms *per se*, but rather objects to philosophers making use of these propositions whilst ignoring their actual non-propositional role in our lives, exempt from doubt, mistake, or oversight. He wants these 'propositions which one comes back to again and again as if bewitched—these [he] should like to expunge from philosophical language' (OC §30), but he refuses to interfere with the workings of everyday language. So, there are two senses in which one might say 'I believe in the Last Judgement.' The first is as a commonplace, empirical proposition, being debated quite aside from any genuine religious belief as a simple prediction of a future event. The second is as the culmination of a religious form of life. In this latter instance, it can be expressed as part of the ritual and trappings of a religious life, and this, as his investigation into Frazer makes clear, is something Wittgenstein does not wish to interfere with. Apropos of nothing, to a fellow Christian, a believer's simply saying 'I believe in the Last Judgement' may well sound as queer as Moore's expressions of knowledge (the Moorean propositions). However, in the context of such a liturgical setting, even if it indicates a passionate seizing hold of a system of reference and represents a certainty, it would not sound queer or a joke to one's fellow

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definitely call O'Hara unreasonable. I would say, if this is religious belief, then it's all superstition' (LC, p. 59). Compare this, too, with the earlier recounted anecdote in which Wittgenstein declares Coplestone to have 'contributed nothing to the discussion at all' by attempting to prove the existence of God with philosophical arguments.

[213] Dostoevsky was another author Wittgenstein greatly admired, in particular *The Brothers Karamazov*. See Monk (1990), pp. 107, 136, 549. For a good discussion of Wittgenstein's thought in relation to Dostoevsky, as well as to Kierkegaard and Tolstoy, see Labron (2009), in particular pp. 124-6.

believers.

5.3 Radical vs. Weak Incommensurability

5.3.1 *Clash and incommensurability*

We have characterised disagreement over a concern like the Last Judgement as a clash of world-pictures rather than of opinions, hence Wittgenstein's non-conflict position.[214] The clash focuses on a particular aspect of two people's world-pictures: for example the certainty regarding the Last Judgement, held by one but not by the other. The terminology used here – distinguishing between 'clash' and 'conflict' – was introduced in a footnote at the beginning of the chapter. Having examined Wittgenstein's non-conflict position, the reasons for this distinction should now be more apparent. Something isn't matching up when Wittgenstein refuses to say that he believes in the Last Judgement where the other would, but it cannot be that they conflict over their propositions as neither of their expressions are genuine propositions. We therefore use the term clash to indicate a mismatch of certainties or world-pictures and to describe the state of two incommensurable world-pictures when they come into contact with one another. Conflict is propositional; clash is non-propositional incompatibility of world-pictures.

For the sake of the argument, we shall call the respective positions exemplified in Wittgenstein's Last Judgement scenario Christian and atheist. Their positions may be more nuanced than this, but these labels will serve for easy referencing until we come to draw finer distinctions in §5.4.2. The Christian and the atheist, in their clash over the Last Judgement, reveal themselves to be committed to two different systems of reference. The truth of the empirical propositions – there will be or there will not be a Last Judgement – has become incorporated into those systems of reference.[215] Any attempt to convert the other will therefore rely on non-rational means of persuasion. If the clash leads to a debate, the Christian and the atheist are likely to be talking, as Kuhn terms it, 'at least slightly at cross-purposes' (SSR, p. 112).

The rest of this chapter will be an investigation into the extent of possible communication between the members of two incommensurable world-pictures.

[214] See OC §§66, 155, 512.
[215] See OC §83.

Wittgensteinian fideism, as described by Nielsen and Phillips is a position maintaining that incommensurability entails total untranslatability, and will be used here as an example of a view supporting this entailment.[216] We call this radical incommensurability. On the other end of the spectrum – although no one directly claims to hold such a position – would be weak incommensurability. Weak incommensurability would hold that cross-world-picture communication is unvaryingly unproblematic, and that, for instance, the believer and the non-believer encounter no lexical discrepancies between themselves in any discussion they might have.

Wittgensteinian fideism is knowingly presented here as a straw-person argument, although its parallel in Kuhnian philosophy of science has been supported by, amongst others, Putnam and Davidson.[217] Even D.Z. Phillips, according to Nielsen the archetypal Wittgensteinian fideist, has strenuously denied his association with the position. Phillips points to several instances of his own work, some of which pre-date Nielsen's article, which indicate that he should not be associated with Wittgensteinian fideism, for example:

> I am anxious to avoid a position in which religious discourse seems to be a special language cut off from other forms of human discourse. Religion would not have the kind of importance it has were it not connected with the rest of life.[218]

Wittgensteinian fideism's role in this discussion, therefore, is not so much that of a theory to be evaluated, but rather as a comparative position in order to guide a reasonable conclusion. However it is particularly useful because Nielsen's paper focused on religious examples, and in examining Wittgensteinian fideism we can therefore draw on the work of earlier in this chapter from §5.2. The final sections of this chapter will propose a viable middle way between these two extremes, which we will call dynamic incommensurability.

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[216] Nielsen (1967), Phillips and Nielsen (2005).
[217] Putnam (1981) and Davidson (1974).
[218] Phillips (1967), p. 196.

5.3.2 *Wittgensteinian Fideism*

Wittgensteinian fideism is not a position claimed by anyone. Rather, Nielsen in a paper called 'Wittgensteinian Fideism', accuses various Wittgenstein scholars – particularly D Z Phillips, Peter Winch, Norman Malcolm, and G. E. Hughes – of misinterpreting Wittgenstein in such a way that this becomes their position unintentionally.[219] The position is described by Nielsen as follows:

1. The forms of language are the forms of life.
2. What is *given* are the forms of life.
3. Ordinary language is all right as it is.
4. A philosopher's task is not to evaluate or criticise language or the forms of life, but to describe them where necessary and to the extent necessary to break philosophical perplexity concerning their operation.
5. The different modes of discourse which are distinctive forms of life all have a logic of their own.
6. Forms of life taken as a whole are not amenable to criticism; each mode of discourse is in order as it is, for each has its own criteria and each sets its own norms of intelligibility, reality and rationality.
7. These general, dispute-engendering concepts, i.e. intelligibility, reality and rationality are systematically ambiguous; their exact meaning can only be determined in the context of a determinate way of life.
8. There is no Archimedean point in terms of which a philosopher (or for that matter anyone else) can relevantly criticise whole modes of discourse or, what comes to the same thing, ways of life, for each mode of discourse has its own specific criteria of rationality/irrationality, intelligibility/unintelligibility, and reality/unreality.[220]

The use of 'forms of life' is actually a little unclear. The Wittgensteinian fideist position set out by Nielsen focuses on forms of life as it derives its stance from *Philosophical Investigations*; the world-picture is a concept only present in Wittgenstein's writings in *On Certainty*. Nielsen was writing in 1967; *On Certainty* was not published until 1969. As we saw in Chapter 3, there are good reasons for making a clear distinction between these two terms: a form of life encompasses the entire breadth of a community's practices and customs, whereas a world-picture is made up only of the deeply embedded actions Wittgenstein calls certainties. Given this distinction, we can see that Nielsen's analysis straddles the two terms somewhat.

[219] Winch (1964), Malcolm (1960), Hughes (1962).
[220] Nielsen (1967), p. 192-3.

The targets of Nielsen's original article were interpretations of Wittgenstein that rendered religious belief immune from rational criticism.[221] Even further, such interpretations promote the idea that, for instance, 'the concept of God's reality is only given within and only intelligible within the religious form of life in which such a conception of God is embedded.'[222] Whilst (1) is correct that language-games (the forms of language) are delineated by the forms of life, intelligibility and criticism does not happen between forms of life, but between individuals. Those individuals are always subscribed to a world-picture. As §4.2 explained, being part of a religious form of life – attending church and singing hymns – does not automatically entail a genuinely religious belief in the form of a religious world-picture.

The real point of Nielsen's analysis is that according to a Wittgensteinian fideist position, an atheist, for example, cannot understand or rationally criticise the actions and expressions of a Christian or any other believer. One must be a part of the community in question in order to grasp the particular criteria and norms of intelligibility, reality and rationality. In that case, the concern is to do with world-pictures, not forms of life. Taking part in certain forms of life does not automatically entail that one holds particular certainties determining standards for intelligibility and rationality, for proof, investigation and assertion. Nielsen is not at fault for the blurring of the boundaries between the form of life and the world-picture, given both that *On Certainty* was published after 'Wittgensteinian fideism', and that, to my knowledge, this particular drawing of the distinction has not been suggested outside of this thesis. The term 'form of life' is appropriate for numbers (1), (2), (3), and (4), but thereafter we should substitute it for 'world-picture'. The rest of this chapter will treat Wittgensteinain fideism as a concern regarding world-pictures rather than forms of life.

With this digression now set aside, numbers (1) through (7) are uncontentious, at least insofar as the interpretation of Wittgenstein presented in this thesis. Number (8) is more complex. The difficulty lies in rejecting fideism – and its conclusions that no one can criticise whole modes of discourse on the basis that the ensuing discussion would be intelligible only within one's form of life – without seeking to adopt a

[221] Nielsen (1967), p. 193.
[222] Nielsen (1967), p. 199.

position that transcends all modes of discourse or ways of life and thereby takes up an objective, Archimedean standpoint. Wittgensteinian fideism is an example of the radical interpretation of incommensurability because it does not permit the understanding of an alien 'mode of discourse [with] its own specific criteria of rationality/irrationality, intelligibility/unintelligibility, and reality/unreality'.[223] Contrasted with this is the weak interpretation of incommensurability, which would allow for unproblematic, smooth understanding between any two or more modes of discourse occurring between different world-pictures. This position will not be addressed directly here, as it has already been demonstrated that this position is incompatible with both Wittgenstein's philosophy and Kuhn's *The Structure of Scientific Revolutions*. Kuhn noted the impossibility of directly transferring terms and concepts from Newtonian dynamics to relativistic Einsteinian dynamics, or from Ptolemaic astronomy to the heliocentric Copernican model.[224] As for Wittgenstein, the entire thrust of the *Philosophical Investigations* was to encourage an understanding of language whereby communication is more complicated and dependent upon context and use than simply learning the use of a word and assuming that it pertains in full generality, as the Augustinian picture of language would suggest.[225]

The concept of the weak interpretation of incommensurability is, however, worth keeping in mind, as what will be argued for here is a moderate position, lying some way between the radical and the weak interpretations. This position will suggest that translation between members of different world-pictures is possible, to varying degrees. The extent of possible translation is largely dependent on the degree of similarity between the two world-pictures in question; where there are many similarities, communication is easier than where there are few, and it is also easier to pinpoint where the two world-pictures differ. The adoption of this moderate position will remain faithful to Kuhn's intentions for the concept. We will not conduct a detailed investigation into the respective merits of Nielsen's and Phillips' arguments against Wittgensteinian fideism, but, in developing the case for rejection of radical

[223] Nielsen (1967), p. 192-3.
[224] Cf. SSR, pp. 98-9.
[225] Q.v. §1.2.

incommensurability and support for a moderate interpretation instead, a rejection of Wittgensteinian fideism will be achieved nonetheless.

Kuhn went some way to clarifying his position in *The Road Since Structure*. In the chapter 'Commensurability, Comparability, Communicability', Kuhn notes that a frequent criticism of incommensurability is that 'if there is no way in which the two [languages] can be stated in a single language, then they cannot be compared, and no arguments from evidence can be relevant to the choice between them.'[226] This argument would find sympathy with Wittgensteinian fideism and represents a radical interpretation on the grounds that it regards religious language as being incapable of being stated in any other language. This criticism, suggests Kuhn, though, depends on the assumption that 'if two theories are incommensurable, they must be stated in mutually untranslatable languages.'[227] Although there may be other viable methods of rebutting Kuhn's critics – and Kuhn explores some in the chapter surrounding these remarks, particularly in relation to Putnam's criticisms – it is a rejection of this particular assumption about the nature of incommensurability that will be most useful here.[228]

It is tempting to focus solely on the lexical aspect of incommensurability. When engaged in discussion of the possibility and difficulties of communication, it is not surprising that we first consider language. But differences in lexicon are only one aspect of Kuhn's analysis of paradigms, and only one consequence of incommensurability between them. Kuhn describes the incommensurability of standards, of concepts and vocabulary (or lexicon) and apparatuses, and of perceptual skills (SSR, pp. 148-150). These, however, are only formulations of the diverse practices of scientists, each working in within their respective scientific traditions. Even when Kuhn, in the quotation above rebutting Putnam's criticisms, focuses on the assumption about 'mutually untranslatable languages, we should remember that it is paradigms – ways of acting – that are incommensurable with one another, not theories or their formulations, although these may be the medium by which we

[226] Kuhn (1990), p. 34
[227] Kuhn (1990), p. 34.
[228] Kuhn is here responding to criticisms levelled at the incommensurability concept in Putnam (1981).

recognise an instance of incommensurability. Similarly, for Wittgenstein, it is not language that is our core concern; rather 'it is our *acting*, which lies at the bottom of the language-game' (OC §204). Our certainties are revealed by our actions, not by any propositions – which will, in most contexts, sound absurd or a 'joke' (OC §463) – we may utter in trying to express them. We should therefore be aware that critics of incommensurability often focus too heavily on the linguistic difficulties of translation. Whilst language is certainly a component of the problem, the true source of the problem lies in the difficulty in comparing different ways of acting.

5.3.3 *Incommensurability of actions*

Understanding the real source of incommensurability as residing in ways of acting provides possibilities for avoiding the charge of total untranslatability. As Kuhn notes, 'different paradigms are always slightly at cross-purposes' (SSR, p. 112). But this does not bar translation totally. Xinli Wang's detailed study of incommensurability in *Incommensurability and Cross-Language Communication* addresses this point, and he is suitably wary of the radical interpretation of incommensurability. Like Kuhn, he relates incommensurability to incompatible metaphysical presuppositions between two languages, which in turn are reflected in the practices of a community. Wang cites Gadamer in developing a point bearing remarkable similarities to Wittgenstein, for instance when he notes that 'a whole mythology is deposited in our language' (RFGB p. 10):

> 'If every language is a view of the world, it is so not primarily because it is a particular type of language (in the way that linguists view language) but because of what is said or handed down in this language' (Gadamer, 1989, p. 441) For example, it is not Chinese language *per se*, as a natural language with its unique grammatical structure and lexicon, but rather the Chinese cultural tradition embodied in it, as handed down linguistically by the Chinese language, that constitutes the worldview of the Chinese.[229]

[229] Wang (2007), p. 275.

Wang maintains that even when two traditions, as exemplified by the languages they use, are incompatible on the grounds of fundamentally different presuppositions about metaphysical entities, communication does not have to fail entirely. Whilst Wang (and Gadamer) here focuses on natural languages, the thought is equally applicable to the lexical differences in which disparate world-pictures are embodied.[230] Provided that we do not 'allow ourselves to be blinded by the prejudgements . . . coming with our own language', nor 'bracket all the prejudgements' of our own language and 'jump into the stream of the other's experience . . . mutual understanding' is possible via a 'constant movement back and forth between our own language and the other language.'[231] This method avoids having either to project our own presuppositions on to the other language or to wholeheartedly adopt – i.e. be converted to – those of the tradition we are trying to understand. By a process of dialogue, some communication can be maintained, and this is achieved by making connections with the points both sides of the dialectic hold in common.[232] Wang goes on to describe this as the process by which Kuhn eventually came to understand Aristotle's texts on physics, which previously had been so perplexing to him, when 'suddenly the fragments in [Kuhn's] head sorted themselves out in a new way, and fell into place together.'[233]

Wang's analysis establishes the possibility for rebutting radical incommensurability in theory, but we ought to return to the practical case of the Christian and the atheist in order to see how this might work in practice. In discussing their beliefs they may find serious difficulties in understanding and evaluating each other's claims. Each person employs a different vocabulary for some terms, and, even though both use the same words, their respective meanings may be wholly incompatible. However, they will be able to achieve a degree of communication by comparing their actions. These comparisons would have to be non-trivial and related to the matter at hand. If two world-pictures are clashing primarily over ethics or politics, a connection on the

[230] Wang mentions 'cultural traditions', which suggests something akin to forms of life, but for the reasons explained in Chapter 3 we take into consideration the separate but related axis of world-pictures.
[231] Wang (2007), p. 277.
[232] Schönbaumsfeld has proposed a somewhat similar position, but focuses more heavily on the problems of straightforward translation than on communication in the more general sense. See Schönbaumsfeld (2007), pp. 191-194.
[233] Kuhn (1987), p. 9.

grounds that both parties wear shoes will likely be irrelevant or unhelpful, whereas a common commitment to reducing human suffering might be more productive. The Christian and the atheist – particularly if they have both been raised in the same country and from similar backgrounds, religious upbringing notwithstanding – are likely to behave in similar ways in a variety of respects. For example, responses to basic ethical choices – perhaps excluding areas such as abortion which are highly contentious due to religious dogma – will likely bear a degree of similarity. These similarities may be evident – this generous action, that act of forgiveness – despite there not being a single, common link in light of which all the ethical actions of both parties could be grouped together.

Consider an even more specific example. The Christian and the atheist are each, separately, and without knowledge of each other's case, presented with the choice between killing a man and stealing his money in a situation where they could not be caught, or refraining from doing so. Given their near-identical sociological backgrounds excepting a religious/atheistic upbringing, we would expect their responses to be the same. Both have been brought up to consider murder ethically wrong in almost any conceivable circumstances, and certainly where the only upside would be personal gain. That is not to say that one or the other will never be tempted into failing their own moral convictions, but the conviction itself stands fast nonetheless. The similarity of the ethical aspect of their world-picture might be attributable to the influence of Christian ethics on secular Western life, law, and morality. Far from weakening this position, it strengthens it; the forms of life and world-picture shared by the Christian and the atheist are not always radically dissimilar, and they do not live their lives in isolation from one another.

If we – and the Christian and the atheist themselves – did notice such similarities, what would the consequences be for the charges made against incommensurability? We would still have to concede that smooth, unproblematic communication might remain impossible; a common, neutral language between two world-pictures is probably elusive. But so long as we are prepared to settle for partial translation, examining actions rather than words alone provides a promising start.

5.4 A middle way: dynamic incommensurability

5.4.1 *General comparisons*

A focus on actions instead of words permits further possibilities for world-picture comparisons. Let us now consider the possibility of comparing several world-pictures at once. Let these world-pictures be as distinct as possible in terms of their division from one another. We could do this by constructing an axis, with one line representing chronology and another representing geography. We could then pick out approximate past and present cultures. For example a person's world-picture living in Moscow in the dying days of the Russian Empire, another in the London of Tudor England, a further world-picture from Alexandria in the reign of Ptolemy I, and so on. Given some reliable historical knowledge, we would be able to say that *world-picture x* is either more or less similar to *world-picture y* than to *world-picture z*. Degrees of similarity would be something we would be perfectly comfortable in attributing to different world-pictures like these, provided we knew a little of an individual's likely convictions, based on what we know of contemporary accounts of, for instance, religion, science, and daily life. Of course, this process might involve learning about the forms of life – the breadth of practices – in order to begin acquiring a sense of what stands fast for various people in that culture.

We could also draw this axis along slightly different lines, for we might want to make more specific comparisons. For instance, in the USA, despite deep political-party divisions, regional divisions are often more powerful and influential. Thus it is frequently said that a Southern Democrat will often have more in common with a Southern Republican than with another Democrat from the North, particularly regarding deeply held convictions, for instance over gun laws, religion and prayer in schools, or the scope of the federal government.[234] So, too, rather than compare the world-picture of a Christian of Tudor England with an atheist of Tudor England, we might, in certain respects find more in common by comparing the Tudor Christian with a modern Christian. Knowing along what sort of lines we want to make communication possible informs the way we go about looking for comparisons.

[234] Such a Democrat is sometimes referred to in American politics as a Blue Dog Democrat, the etymology of which is somewhat unclear.

Were we concerned with more trivial matters, we might compare fashion, cuisine, and entertainment between different cultures, and this would involve looking at different forms of life. But for the more significant aspects of a civilisation, we need to look at the deeper convictions of groups of individuals, taking in concerns like religion, ethics, science and politics, in order to understand their world-picture.

The more similar the practices relative to and constitutive of one world-picture are to those of another world-picture, with relevance to the concern at hand, the greater the degree of possible communication. Returning to the Christian and the atheist, their actions are not so different as to be wholly incompatible. In fact, Wittgensteinian fideism seems to lose sight of real life. Devout Christians and firm atheists live side by side in society, despite, in certain respects, very different certainties and world-pictures. Yet they clearly succeed in at least some degree of communication, as they interact coherently on a regular basis. There is enough common ground in their practices for them to engage in the back-and-forth movement suggested by Wang in order to create a dialogue. For the Christian and an atheist, born of similar background aside from their religious upbringing, the degree of difference in their practice is relatively slim, and the level of possible comparison and communication rather high.

We ought also to bear in mind that Wittgenstein, in *Philosophical Investigations*, provides clear indications that similar practices are something we can recognise quite easily. In fact, this is the cornerstone of his family resemblances concept:

> How should we explain to someone what a game is? I imagine that we should describe *games* to him, and we might add: "This *and similar things* are called 'games'" . . . We do not know the boundaries because none have been drawn. (PI §69)

Recognising where connections lie in the absence of strict criteria for what counts as a connection is a skill we are capable of, even if when we make connections we cannot subsume them under a neat and immutable category. Practices like games are blurry at the edges and resist the drawing of a sharp boundary, but so too are religious, political, and ethical practices and the certainties underlying them.

5.4.2 *Nuanced comparisons*

Wittgensteinian fideism proposes that religious world-pictures can be clearly demarcated from non-religious world-pictures. That in itself is suspect, because even the boundary between a Christian and an atheist is not always clear. However the problem is compounded when we take into account further subdividing of the category of 'Christian'. Christianity breaks down into several different denominations and traditions: Roman Catholic, Anglican, Greek Orthodox, Lutheran, Episcopalian, Evangelical, Baptist and Anabaptist, Quaker, Rastafarian, to name only a few. Some of these subdivide even further. Some bear more or less significant similarities to other of these denominations. A perspicuous representation of all – perhaps a visit to a church service and conversation with some of the congregation of each – would enable us to make those connections. Within all the comparisons, we would notice some important differences: between suggested methods of prayer; positions on baptism, including how and when it should take place; ethical guidance; including tolerance of homosexuality; the sorts of medical treatments that are permitted; stance on abortion and in what specific circumstances; and so on. There are also some differences between them on metaphysical issues, particularly to do with the nature of the Trinity, the status of Mary, and, in the case of Rastafarianism, the divinity of Haile Selassie. Although there is a sense in which Wittgenstein was antipathetic to scripture and church teaching, there is no reason to suppose that being brought up in one of these traditions precludes different sorts of authentic religious belief coloured by the different certainties and forms of life each denomination suggests. Each presents a unique type of religious belief, all of which come under the umbrella term 'Christianity', though there may not be a single common feature that unites them all.

Radical incommensurability in the form of Wittgensteinian fideism presents a compartmentalised smoothness of communication: unproblematic if one is willing to remain in communication solely with those who share one's world-picture, utterly impossible if one wishes to venture outside of it and encounter alternative ones. When we consider all the different variations within Christianity, what is the Wittgensteinian fideist to say? He is left with an uncomfortable dilemma: either there is total

untranslatability even between slightly different denominations of the same religion; or those different denominations amount to no difference at all in terms of practice and language. Neither option is reasonable. Clearly, there are very significant differences in the lives of genuine religious believers of each denomination; the horn of the dilemma suggesting there are no differences is untenable. Yet, they can still – and very definitely do – communicate with one another, on matters both religious and secular. In some conversations, doubtless, they will be talking at least slightly at cross-purposes, as Kuhn described it. At this stage, they might well point to their own actions and say 'This is simply what I do in the case of abortion/medical emergency/encounters with homosexuality.' However, that communication is not utterly impossible cannot reasonably be denied, and so the other horn of the dilemma is also untenable. All that is left is to reject the position that led us to the dilemma in the first place, and so we must reject the radical version of incommensurability, whether in the form of Wittgensteinian fideism or otherwise.

Dynamic incommensurability accommodates far better than the radical or weak versions the subtleties and small variations of actual human interaction. The weak interpretation leaves the terrain of cross-world-picture communication impossibly smooth, posing no difficulties at all. Either there are no fundamental differences in practices and vocabulary (suggesting a homogeneous universal world-picture), or there are such differences but communication does not suffer at all. Everyday experience is enough for us to find this position unconvincing. The radical interpretation suffers from the opposite problem, seeing insurmountable problems for communication where either there are none, or those problems are isolated to very specific features of the two world-pictures in question. Dynamic incommensurability cannot offer a template for where connections can and cannot be made. The circumstances will be different in each case, depending both on which world-pictures the individuals trying to communicate belong to, and on what matters the sought communication is about. However, as a rough guide, dynamic incommensurability proposes at least attempting the back-and-forth movement suggested by Wang, spotting points of comparison and working onwards from there. Other considerations may play a role. For instance, in the case of such a dialogue, communication will be hindered if one party is not interested in joining the process of making connections, preferring a closed-minded, isolationist

stance, happy to disregard the world-pictures of others and champion only his own.[235] Still, the boundaries for communication are set in the first instance by the similarities of the world-pictures. However open-minded Moore might be, he would still find some of the practices and expressions of the king (OC §92) impossible to understand, regardless of how far his humility extends with regard to his own world-picture.

The dynamic interpretation of incommensurability presented in this chapter recognises the difficulties of translation and communication but suggests only that it is difficult to varying degrees, and certainly not impossible. The degree of difficulty will largely depend on the similarity of the two world-pictures of the two or more people trying to communicate. Wittgenstein suggests in *Culture and Value* that 'what's ragged should be left ragged' (CV p. 51), and, with regards to cross-world-picture communication, that is a sentiment that has been preserved in the dynamic interpretation of incommensurability. §5.5 will continue by investigating the points that remain impossible to communicate, where, despite the best efforts of both parties, something totally incommensurable remains, however much communication surrounding these points is achieved.

[235] For an excellent argument for the role of open-mindedness or 'epistemic humility' towards other world-pictures, see Kidd (2013). In this paper, Kidd is primarily concerned with scientism, and the closed-mindedness associated with it, whereby only scientific, i.e. causal, explanations are valued, and others are ignored out of hand. However he has indicated to me in conversation that he thinks this point could be expanded beyond the confines of scientism. I agree with Kidd that such open-mindedness would be one of the minor features beyond similarity of world-pictures that determines the possibilities for cross-world-picture communication, although Kidd places more emphasis on the role this has to play than I do. See also Cooper (1997) and (2002), pp. 89-90.

5.5 Clash reveals dissonances

Although dynamic incommensurability suggests that it is only in very rare cases that no communication will be possible between members of different world-pictures, the back-and-forth movement will highlight specific areas where practice and language remain incompatible between the two. One effect of successfully making connections in the areas surrounding such loci is that it will be easier to spot the irreducible points of difference. So, whilst the Christian and the atheist might be able to find common ground in practice and linguistic use that matches perfectly in some areas, imperfectly but to an extent in others, some points – for instance what is meant by the terms 'God', 'faith' or 'the Last Judgement' – permit no further translation. We will call such irreducible points of clash 'dissonances'. Where there is much in common surrounding a dissonance, pinpointing it and working around it are much easier tasks. Similar world-pictures will yield fewer dissonances than dissimilar world-pictures, although the extent of the similarity will depend partly on the nature of the clash.

The Christian and the atheist mentioned in previous examples will encounter only a few dissonances, and then perhaps only if they clash in a circumstance in which religious beliefs are in question or relevant. Wittgenstein's example of the Last Judgement (LC, p. 53), discussed in §5.2, presents such a situation. The fact that Wittgenstein could locate the point of dissonance as lying with their respective convictions on the Last Judgement suggests that there must have been a great deal of agreement between them in other areas. Wittgenstein understands roughly what the Christian means by the words 'the Last Judgement', and also clearly has some understanding of the role it plays in the Christian's life if he refuses to admit that they contradict each other, as he understands that it plays the role of a certainty for the Christian. There may be 'an enormous gulf' (LC, p. 53) between the two when it comes to this feature of their world-pictures, but if the same two characters were debating the nationality of an overhead plane or whether NASA will put a put a human on Mars before 2050 one would say that they were 'fairly near' (LC, p. 53). Just because the Christian differs in one aspect of his standards of enquiring and asserting does not mean that his entire frame of reference and all his practices of enquiring and asserting will be unrecognisable to the atheist. A world-picture provides standards for 'enquiring and asserting' (OC §162), but a single dissonance indicates only a single

mismatched certainty.[236] A world-picture is made up of a whole network of certainties. Many of their other certainties – about gravity, the age of the Earth, and so on – are held by both. Consequently, many of their standards for enquiring and asserting will be identical. Communication is relatively unproblematic. If it is only religious certainties that present dissonances between the two, even conversion – for either party – might not be too difficult. People convert to Christianity and lose their faith in Christianity every day.

Even closer than a Christian and an atheist, we could focus on a Catholic and an Anglican. Here, there will probably be even fewer dissonances than between the broadly defined Christian and the atheist. Discrepancies between the Catholic and the Anglican would perhaps focus on terms like 'transubstantiation', 'the intercession of saints', 'guilt' and the importance of confession. Anglicans take the transubstantiation metaphorically rather than literally. Anglicans do not pray to specific saints depending on the circumstances, believe in original sin, or take confession with a priest. Catholics do all of these things.[237] Nonetheless, crucial terms such as 'God', 'the Trinity', 'the Messiah', and 'the Ten Commandments' would be entirely interchangeable between the two branches of the same faith, and their practices surrounding these terms – both the application of the terms themselves and the influence on the way they conduct their lives – would be nearly identical. Consequently, a conversion from Anglicanism to Catholicism – and we have seen such defections recently amongst the clergy over stances on homosexuality and clergywomen, although it has not been uncommon for other reasons ever since the Reformation – would be a *gestalt* switch of a less radical kind than if an atheist became a Christian or a Christian lost her faith entirely. Debate between Catholics and Anglicans is a common feature of everyday life in the West. Their large degree of lexical similarity not only indicates the vast extent of their shared practice, it also enables them to pick out with a great deal of precision where dissonances occur. Via the back-and-forth movement proposed by Wang, there is plenty on either side with which to see and make connections.

[236] It is conceivable that a single dissonance might indicate a small network of mismatching certainties. However, no strict conditions could be drawn up for this; it would be a matter of seeing connections and spotting dissimilarities at the point of clash. For the sake of simplicity, we will treat it as a one-to-one relationship.
[237] Cf. OC §239.

On the other hand, in cases where such common ground is harder to find, picking out precise dissonances may be a much more difficult task. The case of Moore and the king presents such an example. Moore would hardly know where to start with the king, for their processes and standards of enquiring and asserting are fundamentally different in almost every respect, particularly in relation to the past. Were Moore and this king to meet, their conversation would be hampered by fundamental lexical differences (assuming for now that they even both spoke English) over the meaning – i.e. the correct use – of terms like 'history', 'life', 'ancestors', and so on. These lexical differences would belie the dissonances in their certainties and the incompatible practices these dissonances entail. Moore would be perplexed by several features of the king's behaviour. Whilst confusions would abound, locating the source of the confusion would be challenging. The king would be unable to articulate what it is that forms the substratum of all his enquiring and asserting for Moore's benefit, just as Moore could not do the same for the king. As the anthropologist Kate Fox notes, in a comment echoing Kuhn's scientists struggle to articulate the established bases of their own paradigm (SSR, p. 47), "those who are most 'fluent' in the rituals, customs, and traditions of a particular culture generally lack the detachment necessary to explain the 'grammar' of these practices in an intelligible manner."[238] Moore and the king could tell that their world-pictures are significantly different, but they could not clearly articulate the certainties that make up their own. So numerous and significant are the dissonances that even if they choose to engage in the recommended back-and-forth movement, they will find little they could call similar in their search for comparisons. That is not to say that communication or conversion would be impossible, but the task would be far harder than between a Catholic and an Anglican or even between a Christian and an atheist. If Moore did manage to convert the king to his world-picture, he would first have had to work hard to make some connections in order to understand precisely where the dissonances lie. Only then could he know on which matters the king needs to be persuaded.

5.5.1 *The realities of communication*

[238] Fox (2004), p. 2.

This chapter has focussed on arguing against the fideist or radical version of incommensurability. That position extrapolates from a small focal point of incompatibility which we have called a dissonance – such as terminology and behaviour between a Christian and an atheist regarding a conviction in the Last Judgement – and reaches the conclusion that the two world-pictures that give rise to these expressions permit no inter-communication whatsoever. They are slightly at cross-purposes, as Kuhn notes, but the ease with which they identify this point indicates quite the opposite conclusion: that their standards of enquiring and asserting bear a great degree of similarity, and partial translation is certainly possible. Kuhn's own comments seem to back this position when he remarks that 'communication across the revolutionary divide is inevitably partial' (SSR, p. 149). By the revolutionary divide, he means a comparison between an old paradigm and the one that succeeds it, but this could work equally well for any clashing paradigms or world-pictures. D Z Phillips, denying that he is a Wittgensteinian fideist in the face of Nielsen's claims, suggests an example of possible understanding across the world-picture divide:

> We say that the later stages of a religion are *deeper* than the earlier stages; we say too that one person's faith is deeper than the faith of another person. These judgements can be made by non-believers, which suggests that religious concepts are not inaccessible to non-religious understanding.[239]

Whilst Phillips' passage and consideration of the realities of communication suggest one should reject radical incommensurability, they also raise further questions. We have examined a range of examples in which the similarity of world-pictures and consequently the possibilities for communication and conversion vary: Moore and the king, a Christian and an atheist, and a Catholic and an Anglican. Phillips, though, raises the possibility of different depths of faith even within what might at first seem a unified belief system, however far it is already subdivided into Catholicism, Anglicanism, and so on. If we take the first half of this chapter into account and

[239] Phillips (1964), p. 411.

accept Wittgenstein's remarks on religious belief, then this understanding would have to take account of differences between the practices of a person with a deep faith and those of someone with a less deep faith. Whilst, on the one hand, a non-believer could very well note these differences, we are left wondering what differences are faced between the deep believer and the other. Is their communication always unproblematic, or do they encounter dissonances of their own, however small?

We can take this point in another way, too. Drawing such finely graded distinctions in one area – religious belief – suggests that similar distinctions can be made in all manner of other features of life and world-pictures. Do these also entail small dissonances, and in what sorts of situations might these be revealed? Chapter 6 continues this line of thought, examining what will be termed the individual world-picture. There we will argue that even though we can draw rough boundaries – believer and non-believer, Creationist or Western scientific – the realities of human life do not always lend themselves to such stark contrasts. In Chapter 1, we noted that Kripke's sceptical challenge was responded to by pointing to something homogeneous and unified: a form of life in which everyone always means 'plus' by the '+' sign and not 'quus'. Although nothing has directly challenged the value of this move yet – except for the distinctions drawn in Chapter 3 between the form of life (the term used by Kripke) and the world-picture – the idea of a universal, stable, and homogeneous set of practices is beginning to fall apart. As the concept of the world-picture begins to break down, can Kripke's sceptical solution, or more generally the communal view of language, still be maintained? Chapter 6 will investigate the possibilities for dissecting the concept of the world-picture further, taking issue with Moyal-Sharrock's proposed taxonomy of certainties and in particular her claim of the existence of necessarily universal certainties. Chapter 7 will proceed to re-address Kripke's sceptical challenge and the communal view of language, seeking to re-cast *Philosophical Investigations* in light of the extrapolation of *On Certainty* carried out here.

Conclusions

§5.1 began by outlining the ways in which the parallels drawn in Chapter 4 between Wittgenstein and Kuhn will be useful when it comes to exploring Wittgenstein's thought on religious belief, providing we can acquire a clear understanding of the concept of incommensurability. §5.2 examined some of Wittgenstein's comments on religious belief, informed by a small amount of necessary biographical information in order to clarify what Wittgenstein considered genuine faith. Of utmost importance to Wittgenstein was the effect such faith must have on one's life, a 'passionate commitment to a system of reference' (CV p. 73). This point, coupled with the claim that certain expressions arrive as the culmination of a religious form of life, helped to make sense of Wittgenstein's non-conflict position in the example of the Last Judgement (LC, p. 53). The non-conflict position was described as due to there being a clash of certainties, not empirical propositions, revealed by their claims regarding the Last Judgement. By exposing their respective different frames of reference, Kuhn's analysis of talking at cross-purposes becomes relevant, and so we secured religious belief as another potential way of exploring incommensurability in world-pictures.

§5.3 investigated possible interpretations of incommensurability. Many of Kuhn's critics claimed that it entailed total untranslatability and a necessary failure of communication. This position was compared with an analogous position in Wittgensteinian scholarship, that of Wittgensteinian fideism. As a comparison, a weak interpretation of incommensurability was drawn up as a counterweight. In §5.3.1 the terminology of 'clash' was introduced in order to describe the situation when two incommensurable world-pictures come into contact. §5.3.2 examined an account of Wittgensteinian fideism, taking note of the discrepancy in terminology between form of life and world-picture with reference to the distinction drawn in Chapter 3. Whereas §5.3.2 focused on the lexical aspects of incommensurability, §5.3.3 drew out attention to its deeper features, that of ways of acting. §5.3.3 cited Wang on cross-world-picture communication. Wang makes two key proposals. First, that language use indicates something deeper deposited within a culture, akin to a mythology. Secondly, that via a back-and-forth movement between members of two incommensurable world-pictures in a state of clash, a degree of communication is, in theory, possible.

§5.4 proposed a moderate, dynamic interpretation of incommensurability, situated somewhere between the radical and weak interpretations. In §5.4.1 we took Wang's recommendations and suggested ways such a back-and-forth movement might work in practice. We further suggested that seeing connections (as per §1.4) would be something we would be comfortable doing between world-pictures, using the examples of the Christian and the atheist. §5.4.2 took this process further, looking at more nuanced situations, taking as our examples further subdivisions within the umbrella term of Christianity. §5.4 rejected radical incommensurability and concluded that the dynamic interpretation of incommensurability provided an understanding whereby the difficulties of cross-world-picture communication were recognised, but not deemed insurmountable.

§5.5 addressed the concern of what is happening when, despite the back-and-forth movement suggested by dynamic incommensurability, some points remain irreducibly incompatible. Such instances were termed 'dissonances'. We looked at a range of world-picture comparisons, from Moore and the king, to the Christian and the atheist, and a Catholic and an Anglican. We concluded that the more similar the world-pictures in a state of clash, the fewer the dissonances, and the easier the task of achieving a measure of cross-world-picture communication. Further, where there are fewer dissonances, the remaining dissonances are easier to pinpoint as there is more in common between the members of the world-pictures' standards of enquiring and asserting. Where these can be accurately located, if a conversion is sought, it will be easier to target one's efforts of persuasion in order to effect that conversion. Finally, §5.5.1 raised Phillips' distinction between different depths of faith, and posed some questions for the final two chapters of this thesis. If such distinctions are reasonable, how much further and more finely graded can our distinctions go? The concept of an identical world-picture held by several people seems to be breaking down as we consider more and more axes along which we can note dissimilarities in world-pictures.

Chapter 6 – Refining the world-picture

6.1 The aims of a refined world-picture

Chapter 6 will break down the concept of the world-picture further than we already have in Chapter 5. Drawing on our understanding of incommensurability as arising from dissonances between adherents of different world-pictures – so far introduced in terms of examples using Christians and atheists and Moore and the king – here we investigate certainties even more idiosyncratic to each individual. It is clear that such discrepancies between adherents of different world-pictures can affect possibilities for communication and conversion.[240] We are now interested in seeing whether even more finely grained differences will have a similar, albeit possibly less significant, effect. This chapter introduces these possibilities, and Chapter 7 will conclude the thesis by investigating what effect these considerations have on our understanding of language as a communal activity.

[240] Q.v. §5.5.

First, we will consider a different variant to world-pictures and certainties. §5.5.1 introduced a remark from D.Z. Phillips who suggested that the 'later stages of a religion are *deeper* than the earlier stages; we say too that one person's faith is deeper than the faith of another person.'[241] In §6.2 we will explain how these depths of religious faith, but also of any aspect of one's world-picture, can be attributed to different depths of certainties in an individual's life, and just what such different depths of certainties entail.

§6.3 introduces the term 'restricted domains'. Restricted domains indicate aspects of an individual's life – particular abilities or practices – which, whilst structured by certainties, have a limited scope of influence, usually only to when engaging in the relevant activities. These contrast with the more general certainties we have already explored, such as that of gravity or the Last Judgement, which influence nearly everything an individual does. Danièle Moyal-Sharrock has proposed a taxonomy of certainties, divided into four main groups, and then into further sub-groups. The latter stages of §6.3 will explore one of these groups and sub-groups – personal, and personal-autobiographical certainties – in order to improve upon her commendable initial efforts at constructing a taxonomy by fitting the certainties of restricted domains into these categories.

Having situated the certainties of restricted domains within Moyal-Sharrock's taxonomy, §6.4 will raise some issues with it. First, we will consider her problematic account of universal certainties, suggesting that her justification for their existence is unpersuasive, before arguing that, whilst the taxonomy is helpful in getting to grips with the complexity of *On Certainty*, particularly if one accepts the refinements proposed in this chapter, it might be too rigid a structure to accommodate the nuances of all our practices, and therefore should only be considered a rough guide.

Finally, we will address a dissenting voice. Towards the end of Annalisa Coliva's recent work, *Moore and Wittgenstein*, she proposes that there are no alternative world-pictures, and, further, that alternative world-pictures are inconceivable. It is

[241] Phillips (1964), p. 411.

worth engaging with on the basis alone of its status as a thorough and sophisticated piece of recent scholarship, but particularly so given that its final pronouncements are so distinctly opposed to the arguments presented in this thesis. We will reject her claims in §6.5.

6.2 Certainties of different depths

§5.5.1 discussed the following passage from D.Z. Phillips:

> We say that the later stages of a religion are *deeper* than the earlier stages; we say too that one person's faith is deeper than the faith of another person. These judgements can be made by non-believers, which suggests that religious concepts are not inaccessible to non-religious understanding.[242]

If religious faith can be of different depths, and religious faith belies certainties, does it make sense to claim that it is the certainties that are of different depths? There are two ways we could consider the same certainty to exist at different depths within a world-picture. We could consider, on the one hand, how prone a certainty is to revision; that is, to being swept back into the flow of hypothesis and testing and subject to doubt and evidence. On the other, we can take into account the consistency of practice according to that certainty. Some certainties, particularly religious, ethical, or political certainties – all of which a certainty like the Last Judgement could encompass – do not function in quite the same way as, say, certainties about gravity or the age of the Earth. For whilst a certainty like the Last Judgement structures all one's enquiring and asserting – in essence, much of one's moral judgements – that does not automatically entail that one always acts according to those judgements. We'll return to this shortly, but first we'll examine proneness to revision.

6.2.1 *Proneness of a certainty to revision*

We noted in §2.6.1 that there are two distinctions made in the riverbed metaphor of OC §§97-99: between certainties and hypotheses (the riverbed and the waters); and between different depths of the riverbed. The latter distinction was described as capturing how some ways of acting last perhaps only a few centuries or even decades whilst others are deeper in the riverbed and erosion might take thousands of years, if

[242] Phillips (1964), p. 411.

it happens at all. In Chapter 2, the process of breaking down the world-picture had not yet begun, and our focus was with world-pictures on a grand scale. A very basic knowledge of history would suggest that, for instance, certainties regarding gravity are ancient whereas others have been shorter lived.

When we consider the certainties that have changed, we do so by thinking of the aggregate of individuals, even though, as noted in §4.6.2, each individual is converted individually, at least until the new certainty is established and becomes part of the upbringing of future generations. Yet, for each individual during a period of change – for example, the shift from geocentrism to heliocentrism – some people's certainties are more or less likely to be called into question and returned to the flow of empirical investigation than others. One would expect, during that period, that members of the clergy such as Cardinal Bellarmine, who ordered that Galileo retract his astronomical claims on the grounds that they were antithetical to Church dogma, would have found it harder to reconsider his certainty on geocentrism due to his position as a religious leader.[243] His religious convictions, as a cardinal, were unshakeable, and Galileo's evidence would not be counted as evidence by an adherent of such a fiercely Christian world-picture. For Bellarmine, 'the world stands firm, never to be moved', and only a conversion away from Christianity (or perhaps to a more Wittgensteinian, less dogmatic version of it) could change this for him.[244] On the other hand, an educated person with a faith less deep than Bellarmine's might have been able to countenance Galileo's heliocentrism. Religious certainties of different depths do seem to be able to account for differences of faith, observable in the actions of those individuals.

Whereas the gravity certainty – regardless of whether it would have been labelled as such pre- or post-Newton – is probably entrenched equally amongst all humans at all times, we would be justified in claiming that a certainty in the Last Judgement is held more unshakeably by a member of the clergy than by a layperson; it would take something greater to induce a spiritual crisis in the former than in the latter. Similarly,

[243] See Mayer (2010). This could be considered either way. His position might force upon him a degree of cognitive dissonance, whereby he is persuaded by Galileo's arguments but unable to recognise this due to the consequences it would have for his life and career, or the depth of his faith could be genuine and that is why he holds the post. The specifics in this case are irrelevant, but the principle holds in either case.
[244] 1 Chronicles 16:30. See also Psalms 93:1, 96:10.

in a secular example, the person on the platform in Speakers' Corner in Hyde Park proclaiming how evil it is to eat meat holds an ethical certainty less likely to be shifted by any argument or evidence than a recent convert to vegetarianism, whose convictions so far are less deeply rooted. Neither would be likely to eat meat, but, as Phillips suggests in the earlier example regarding the depth of faith, the differing fervour of their respective convictions would be just as observable to the non-believer or the carnivore as to the insider of either group. This judgement by the outsider could be made on the basis of how vociferous they are when their respective turn comes to mount the platform; their receptivity to counter-arguments and tendency to re-state blunt convictions rather than engage in debate; or, in personal circumstances, how likely they are to be tempted and to yield to that temptation to eat meat. So our distinction between certainties of the hard rock and of the sand applies not only when viewed as an aggregation of many people, but also within individuals.

6.2.2 *Consistency of practice according to a certainty*

The last scenario, introducing temptation, brings us to our second consideration, consistency of practice according with a certainty. Religious and ethical certainties may structure our judgements, and we may hold these judgements in common with those who share this aspect of our world-picture, but this does not guarantee perfect adherence for every individual at all times. Apart from exceptional circumstances where mitigating factors might conceivably play a part, the thief, fraudster, and murderer consider theft, fraud, and murder morally wrong. Falling prey to a vice – an addiction or predilection or sheer greed – happens to the most devout of believers, but does not necessarily shake their faith or their conviction that what they did was, beyond all doubt, wrong. Everyone is susceptible to temptation that contradicts their ethical convictions. Flouting such a certainty might not amount to an aberration, but rather to a mistake. The judgement and its underlying structure of certainties need not be affected by actions, although regular transgressions would open the agent to charges of hypocrisy and, on Wittgenstein's terms, an inauthentic faith if proclamations of religious virtue were a frequent feature of their life.

If a passionate commitment to a system of reference which 'provides guidance for . . . life' (LC, p. 53) is the crucial aspect of such a deep-rooted conviction – and it need not be Christian, but rather any religious or ethical conviction – then the regularity with which this guidance is followed indicates the depth of the conviction, the extent to which it has taken hold.[245] Conversely, someone who, perhaps quite genuinely, has taken something like the Last Judgement as a passionate commitment to a system of reference but regularly fails their own conviction might still be said to have an authentic faith but nonetheless not a deep one.

Within any guidance for life occasional failures of one's own standards are more or less inevitable. Of further interest in considering the depth of the conviction would be the degree to which one castigates oneself following a transgression of one's own system of ethical judging and asserting. The person who regularly fails to live up to their own ethical system of reference but suffers extreme guilt and seeks to make amends could still have a deeper faith than someone who fails just as often but brushes it off as inconsequential and makes no effort at redemption. The depth of a certainty in a person is a judgment we can make by examining someone's consistency of practice and whether it accords with a conviction, but there is no checklist or system applicable to all cases by which we could make this judgement.

Someone who holds a deep certainty would probably speak about his convictions in a different manner from one whose certainty is less deep. Whilst significant lexical discrepancies are unlikely, considerations of conversion are well placed here. Something has to change in an individual for a shallower certainty or faith to become a deeper one. In cases where ethical or religious judgements are part of the conviction, this process can often involve an elder or authority figure, whose certainties are already deeply embedded, to guide the recent convert or wavering believer deeper into the riverbed where his convictions are more secure. In the case of more widely applicable certainties – gravity, the dangerousness of fire, simple arithmetic, the age of the Earth – the depth of certainty between individuals is

[245] Consider again the comment mentioned in §5.2.2 that Wittgenstein made to Smythies: 'If someone tells me he has bought the outfit of a tightrope walker I am not impressed until I see what is done with it' (Monk, 1990, p. 464).

unlikely to vary much.[246] However, in cases where conversion of a certainty is more likely, where certainties are more prone to be acquired and relinquished during the course of a person's life, then differences of depth are more readily found. We now leave considerations of depth of certainties and consider the certainties of restricted domains in relation to Moyal-Sharrock's taxonomy of certainties.

[246] For reasons that will become clear in §6.4 in addressing aspects of Moyal-Sharrock's taxonomy, we still ought to be wary of considering these certainties to be universal.

6.3 Restricted domains and Moyal-Sharrock's taxonomy

Danièle Moyal-Sharrock has 'propose[d] a *taxonomy* of hinges', listing fixed differences between linguistic, personal, local, and universal hinges.[247] Whilst she concedes that 'this classification is *not* Wittgenstein's', she argues that it presents a 'more manageable, and more perspicuous, presentation' of the ideas in *On Certainty*.[248] Moyal-Sharrock lists four types of certainty:

1. Linguistic hinges: 'are *strictly* grammatical rules that precisely define our individual use of words and of numbers . . . [they are different] from the generic class of *grammatical* rules.' For example: *'2+2+4', 'This colour is called blue/green (in English)'.*

2. Personal hinges: 'to do with our individual lives'. For example: *'I am now sitting in a chair', 'I have never been on the moon', 'The person opposite me is my old friend so and so'.*

3. Local hinges: 'constitute the underlying framework of knowledge of all or only some human beings at a given time'. For example: *'No one was ever on the moon', 'The earth is round'.*

4. Universal hinges: 'delimit the universal bounds of sense for us: they are *ungiveupable* certainties for all normal human beings'. For example: *'There are physical objects', 'I have forbears'.*[249]

Linguistic hinges are all 'giveupable'; personal and local hinges both contain some 'giveupable' and some 'ungiveupable' hinges. Universal hinges are all 'ungiveupable'.[250] Moyal-Sharrock draws evidence for this distinction from *On Certainty*, §613, where Wittgenstein notes 'a difference between the cases' of water freezing when placed over a heat source and 'doubting whether this person here is N.N., whom I have known for years'. In the case of water freezing when placed over a heat source, Wittgenstein says that he would 'assume some factor I don't know of'

[247] Moyal-Sharrock (2007), pp. 100-103. See also Chapters 5, 6, and 7 of same publication. Note that although Moyal-Sharrock uses the term 'hinges' for what I have called 'certainties', there is no significant difference in our definitions for these purposes, and throughout this chapter I will use the terms interchangeably.
[248] Moyal-Sharrock (2007), pp. 101 and 102.
[249] Moyal-Sharrock (2007), p. 102.
[250] Moyal-Sharrock (2007), p. 106. The terminology used by Moyal-Sharrock is unwieldy, but we will retain it to avoid confusion.

(OC §613), whereas a doubt that he recognises his friend would 'drag everything with it and plunge it into chaos' (OC §613). Moyal-Sharrock takes a hinge to be ungiveupable 'where no circumstances would induce a normal individual to give it up at any time'.[251]

Within the class of personal hinges, Moyal-Sharrock distinguishes between autobiographical and perceptual hinges. Personal-autobiographical hinges 'make up an individual's objective certainty about who he is, where he is, what he is doing, the people he knows, his abilities, some of the events in his past, and so on.'[252] Whilst she lists someone's abilities as a feature of personal-autobiographical hinges, she does not elaborate on this feature, focusing instead on concerns of where someone has been and events in his past. Her examination of these matters is complex and impressive, but, for our purposes, two things are missing. First, a deeper understanding of ability certainties is desirable. Secondly, what – if any – effects this has on our understanding of communication and conversion between people who don't share some of these certainties. To begin with, in §6.3.1 I will propose some justifications of my own for regarding various human abilities and practices as having certainties in principle, before considering some specific activities of restricted domains by way of illustration in §6.3.2 and §6.3.3.

6.3.1 *Justification for the certainties of practices and abilities*

There is a strong case to be made for considering many human practices as grounded and structured by certainties beyond those originally taken into consideration by Wittgenstein. By considering the manner in which Wittgenstein describes activities like doing mathematics or speaking a language as resting on certainties, and how he describes these as rule- and logic-governed practices like any other, we can expand our understanding of what constitutes a certainty-based practice.

[251] Moyal-Sharrock (2007), p. 101.
[252] Moyal-Sharrock (2007), p. 124. Regarding the personal aspects of a world-picture cf. Hamilton (2013), Chapter 7.

When asking himself why he is 'so certain that this is my hand', Wittgenstein suggests that the 'whole language-game rest[s] on this certainty' (OC §446). So language-games involving hands depend on the certainty that one has a hand. He then compares this certainty with a basic mathematical certainty, the remark '12x12=144'. He claims that 'both propositions, the arithmetical one and the physical one, are on the same level . . . The physical game is just as certain as the arithmetical . . . My remark is a logical and not a psychological one' (OC §447). As Moyal-Sharrock suggests, the basics of mathematics become certainties:

> '2+2=4' is a mathematical hinge for me (as for most numerate individuals), but not '235+532=767' . . . as Wittgenstein notes, some calculations become 'fixed' or 'reliable once and for all' – that is removed from doubt and where checking no longer makes sense – whilst others do not.[253]

The certainties we have mentioned – that one has a hand and that '12x12=144' – are comparable with each other and belong to logic. What is it for a certainty to be a part of logic? Our first clue is that 'everything descriptive of a language-game is part of logic' (OC §56). Wittgenstein also emphasises that the 'kind of certainty is the kind of language-game' (PI §332). In separate statements, Wittgenstein has given indications that the kind of certainty describes the language-game, and that everything descriptive of a language-game is part of logic. Certainties comprise the logic of a language-game. In the case of a language-game involving talk of hands, the certainty that we have hands belongs to the logic of that particular language-game. Wittgenstein also says that 'What counts as an adequate test of a statement belongs to logic. It belongs to the description of the language-game' (OC §82). If something determines what counts as an adequate test of a statement then it makes up 'the substratum of all my enquiring and asserting' and belongs to our 'world-picture' (OC §162). Therefore logic makes up the character of our world-picture and thereby structures our language-games. Our certainty that we have a hand is part of logic, part of our world-picture, and the 'whole language-game rest[s] on this certainty' (OC §446).

[253] Moyal-Sharrock (2007), p. 119.

Language-games, again, are the conduit by which we can examine surrounding concepts, particularly as they are consistent features across both *Philosophical Investigations* and *On Certainty*. We can also compare Wittgenstein's comments on language-games with those on mathematics. *Philosophical Investigations* stresses that languages-games are networks of rule-following practices (PI §§3, 31, 54, 68), different from other rule-following practices only in that they are linguistic (PI §§7, 21, 23 51). Similarly, Wittgenstein states that mathematics is 'an *activity'* (PI §349), a series of techniques to master. Mathematics has certainties and it is a practice; not a privileged, special practice, but one amongst many others.[254] So, if language-games and mathematics are practices and abilities requiring mastery, and these practices are defined by the type of certainties underlying them, then we would expect other, non-linguistic and non-mathematical practices and abilities also to be at least partly defined by the kind of certainties that underlies them. Otherwise mathematics and linguistic activities would have to be privileged, special types of activities, which Wittgenstein is quite clear they are not.

Other practices, too, ought to have certainties then. The difficulty here is that mathematics and language-games are more or less common practices to all humans. Whilst language-games definitely – and even conceivably ways of doing mathematics might – differ from person to person, community to community, almost everyone does them in some form. Other practices, though, are not so common to all. Whilst we have established that certainties could underpin any practice in principle, acquiring specifics will be a much trickier task. To aid this process, in the next section we will introduce the concept of restricted domains.

6.3.2 *Restricted domains*

There is a difficulty in investigating the certainties of restricted domains. The concept is intended to mark off the certainties according to particular practices. For any practice we pick to illustrate the idea, it is likely that most people do not participate in it. Therefore there will inevitably be difficulties in clearly articulating just what these

[254] Cf. PI §§254, 342, 343, 349, RFM VI-33-4, VI-41, VI-70.

sorts of certainties might amount to. Any example we pick might be recognisable to some readers, unrecognisable to others. As a result, examples can only be sketched out, and in an illustrative fashion, and some examples might strike some readers forcefully and others not at all. Luckily, Kuhn presented an example well suited to our purposes with which to begin, although as our examples become more specific, the domains more restricted, this will become more difficult. We have already considered this example of Kuhn's in another context in Chapter 4, but it is worth repeating here:

> An investigator who hoped to learn something about what scientists took the atomic theory to be asked a distinguished physicist and an eminent chemist whether a single atom of helium was or was not a molecule. Both answered without hesitation, but their answers were not the same. For the chemist the atom of helium was a molecule because it behaved like one with respect to the kinetic theory of gases. For the physicist, on the other hand, the helium atom was not a molecule because it displayed no molecular spectrum. Presumably both men were talking of the same particle, but they were viewing it through their own research training and practice. Their experience in problem-solving told them what a molecule must be. Undoubtedly their experiences had much in common, but they did not, in this case, tell the two specialists the same thing (SSR, pp. 50-1).

Whilst two scientists might share a broad base of certainties, their respective specialities might lead to divisions. These two scientists, we presume, are from the same twentieth-century Western scientific tradition. Only a particular situation – being asked to respond to a very specific question – revealed a substantive difference in the foundations of their scientific paradigms. Each has some slightly different certainties (or, in Kuhn's terminology, established bases) regarding the fundamental constituent parts of the universe.[255] These differences presented as dissonances in a

[255] We could also consider a similar example between a Newtonian and an Einsteinian physicist. Russell McCormmach's novel, *Night Thoughts of a Classical Physicist*, presents an interesting idea of what it was like for an old-fashioned, classical physicist to be faced with the emerging alternative paradigm (i.e. world-picture) of the relativistic physicists who followed Einstein in the early twentieth century. See McCormmach (1982).

particular circumstance that created a clash. When doing physics or doing chemistry, each operates with his own certainties structuring his own investigations. Outside of the laboratory, though, these certainties are irrelevant. Filling a balloon for a child's party with helium from a canister, neither's certainty – one taking a helium particle to be a molecule, the other not taking it to be a molecule – is structuring their actions. Only when doing physics or doing chemistry are their individual certainties relevant, structuring their practices for a quite specific set of actions. This is what we mean by the term restricted domains. These certainties are restricted to the domains of physical- and chemical-scientific practice respectively. Even were they both to engage in other scientific practices, this division in their paradigms might not be revealed. When with their own kind of scientist though, each can take a communally shared set of certainties for granted.

Kuhn's example using different specialities within the same professional field is a useful place to start. We could consider a similar, profession-related example, that of a London taxi driver who has passed the Knowledge. The Knowledge is the mandatory test in order to gain a license for all London black-taxi drivers. It requires that each candidate be able to drive between any two points in London within a six-mile radius of Charing Cross without reference to a map or use of satellite navigation, as well as knowing the locations of various other points of interest such as hotels, theatres, schools, and hospitals. A London taxi driver who has passed the Knowledge – or indeed anyone who has taken that test – would consider a fellow cabbie's claims that Pall Mall is in Islington to be indicative of madness, serious intoxication, or degenerative brain function, not a proposition to be seriously debated. They might debate between themselves the best routes, taking into account whether they wish to artificially increase the cost of the fare, frequent traffic hotspots, shortcuts, illegal but easily performed manoeuvres, locations of good rest stops or well-positioned taxi ranks, any number of things. But the correct locations of Pall Mall and Islington are beyond doubt. They, along with innumerate other locations and road plans, structure any debate they have on how best to get around London.

I did not grow up in London and I don't have any of these certainties regarding locations of various areas or points of interest. When I go there, I use a map and often still get lost. In time, through frequent repetition of routes and recognition of areas,

some locations might become embedded and form certainties of my own, rather like the driver who has passed the Knowledge. But until I am more familiar and have demonstrated my mastery of getting around London, I do not have some of the certainties the taxi driver has. Of course, even for the taxi driver, these are certainties of a restricted domain. Once he has finished his shift and goes home, the certainties about London locations are irrelevant, just as the respective molecule or non-molecule certainties are for the physicist and chemist outside of the lab.

6.3.3 *More restricted domains*

We can restrict our domains even further and discover certainties of even more limited practices. Perhaps in chess, that 'check *belongs* to our concept of the chess king' (PI §136), or that pawns can only move one space (two on the pawn's first move), forwards into an open square or diagonally if taking a piece. For advanced players, various certainties regarding appropriate tactics, opening moves, different players' styles of play could be discovered. I am not a good enough chess player to even be able to conceive of what these might be like.[256] However, we could add an easy-to-understand possible certainty conversion. Many novice and even some quite experienced chess players are unfamiliar with the *en passant* rule, and play perfectly happily and competently without it, sometimes for years.[257] It is a rare manoeuvre. Upon being told of the rule, a small part of the chess world-picture comes under revision. The possibilities – permitted moves, standards of enquiring whether *x* is a good move or a bad move – on the board are altered. The *en passant* rule itself is not the certainty, any more than Newton's formulation of the law of gravity is a certainty. The way of acting whereby *en passant* is incorporated into the game and informs all

[256] At this level of restricted domains, short of training to Grandmaster level myself, non-philosophical works could provide an insight into how such certainties might function, what it might be like to be a skilled chess player and the sorts of things one can take for granted in developing ever more complex strategies. We could, of course, read *Play Winning Chess*, Seirawan (1990) and begin the process of training, but a better place to start might be fiction, such as *The Luzhin Defense*, Nabokov (2000).

[257] *En passant* can be played if white moves a pawn two squares forward for the piece's first move. If on the next turn a black pawn could have taken the white pawn had the white pawn moved only one square forward, the black pawn may move one square diagonally as if the white piece had moved only one square, and the white piece is thus taken and removed from the board. The colours used could be reversed.

sorts of other moves – for example, white might move other pieces differently to avoid black taking white's pawn via *en passant* – is a certainty in the domain of chess. The revision to how one can move pawns constitutes a revision to one of the certainties of chess.

A proficient amateur pianist has certainties about octaves, tempo, the location of the piano keys relative to each other, and these structure her piano-playing activities. Whilst they may once have been part of her musical education, through drill and hours of practice they have become embedded into this domain of her world-picture. One could no more inform her that it has been discovered that the scale of C-major has a sharp (#) in it after all or that there is a minor note between keys E and F than that the Earth is only a day old. All the hallmarks of a certainty inhere in the way she plays, the way she can sight-read or play by ear, or teach a student.

An accomplished tennis player acquires certainties which will not just be about the fundamental rules of the game, but also about tactics, positioning on the court, difference in pace of the match depending on whether one is playing singles or doubles, how tennis balls feel and behave when playing at different altitudes, or when the balls themselves are new compared to when they are six games old in a match between heavy servers when some of the bounce and fluff has come off.[258] One becomes a better tennis player when advanced techniques like top-spin and a wrong-footing inside-out forehand to the ad-court become embedded in one's practice, structuring how one approaches the point without having to ask oneself within the split-seconds available 'Am I capable of this shot?' or 'Does this technique work?' Capable tennis players share these certainties, or similar ones. Some of these will be

[258] Again, trying to explain these phenomena within the rigid structures of a philosophical work might be futile. A fictional account would be useful, but perhaps even better would be David Foster Wallace's superb 'Roger Federer as Religious Experience', Wallace (2012), a piece classifiable as that ugliest of things, sports journalism, only in the sense that it is about sport and was originally printed in *The New Yorker*. In distinguishing between the great and the simply extraordinary professional tennis players, it is also suggestive of the distinction of depth of certainties raised in §6.2.

different from those of other tennis players from other times, when racquets were heavier, balls were slower, and tactics more genteel and less aggressive.[259]

My tennis certainties are not just idiosyncratic to me; I share them with many others who play tennis. Part of this will be revealed in our actions, by playing tennis, but also in how members of the tennis-playing community speak to one another. They debate the advantages of different types of racquet, which umpires on the circuit are known to be keenly observant of foot faults, the benefit of hitting a hard but somewhat risky second serve when it is set point to the opponent. As discussed in principle in §6.3.1, language-games reveal their own logic and their own certainties. We tennis players could not debate the merits of different racquets for generating top-spin if we didn't operate with the certainty of what top-spin is, how to achieve it, how different racquet and string compositions affect it, and so on. None of these things needs to be defined or mentioned explicitly, but it is an axis around which other features of our tennis-playing activities revolve. Of course, whilst an outsider could probably understand the gist of our conversation, there would be an aspect that remained incommunicable without having the certainties that come from playing the game. A dialogue and Wang's back-and-forth movement would help achieve some communication on these matters with an outsider, but something remains incommensurable. If my friend is not certain as to what constitutes a set point, I cannot sensibly debate the appropriate tactics one ought to take when facing one, any more than Moore can debate with the king whether Shakespeare's *Richard III* is an accurate portrayal of the monarch if (Moore's) king is certain that the Earth began with him.[260]

6.3.4 *The activities of restricted domains within Moyal-Sharrock's taxonomy*

The examples raised in §6.3.2 and §6.3.3 only indicate the enormous variety of activities that could be underpinned by certainties, following from the demonstration in §6.3.1 that such certainties are in principle a reasonable concept. Throughout the

[259] Insofar as certainties actually can conflict, rather than representing incommensurable dissonances, q.v. Chapters 4 and 5 of this thesis. This, too, is a problem with rendering certainties propositionally.

[260] Q.v. §2.4. Let us presume that Moore is talented enough to perform an accomplished one-man version of the play for the king's benefit.

examples, hints have been given that these practices bear the hallmarks of certainties. Now we will see if these can be accommodated within Moyal-Sharrock's taxonomy. Permitting personal-autobiographical hinges to include the certainties that structure the practices of, say, playing chess, requires that we cannot be any more mistaken about the fundamentals of chess than we could be about having for months 'lived at address A' (OC §70) or never 'having been in Asia Minor' (OC §417). Wittgenstein asks:

> Could we imagine a man who keeps on making mistakes when we regard a mistake as ruled out, and in fact never encounter one? E.g. he says he lives in such and such a place, is so and so old, comes from such and such a city, and he speaks with the same certainty (giving all the tokens of it) as I do, but he is wrong? (OC §67)

Wittgenstein's point is not so much whether we really can imagine such a person – doubtless we could, but would regard him as delusional or lying – but rather to draw our attention to the tokens of certainty we ordinarily give for our own certainties of these things. Our certainties that we have lived at such-and-such a place and are so-and-so old are not demonstrated by our expressing these things apropos of nothing. These tokens of certainty involve things like going home and opening the door with one's own key or filling out one's correct age on health-insurance documents. That is, when it comes to certainties, what one says isn't all that important – as in the case of the man in OC §67 – but rather what one does, what tokens of certainty one reveals oneself to have indirectly. These examples of where one lives and one's age are what we ordinarily think of as the very basics of what it is to have an autobiography, a life story. But our abilities and the practices in which we demonstrate them, as intimated but not explored by Moyal-Sharrock, are just as much a part of this.

For instance, my proficiency at tennis is just as much a part of how I perceive myself and others perceive me as where I have lived for the last few years. I am no less certain that I am competent at tennis – could serve the ball into the correct box most of the time, on random request or in a match – than I am of my current postal

address.[261] It informs many of my other actions – browsing and buying equipment; watching tennis on television and trying to learn and improve by observation; commenting on other players' games – just as my living where I do informs what I put on documents and where I walk back to from the library.

If someone were to tell me I had never played tennis and would be unable to hit a ball at all accurately, I would call them a liar, tell them they were seeking to offend, or worry they were deluded. If they persisted, and I began to question my own certainty – that is, for it to be dredged up from its place in my riverbed – I would offer to prove it and re-harden my certainty by inviting them to play a game with me; just as, if someone managed to instil in me a doubt about where I lived, I would offer to show them that my key to the door works. If it turned out I really was wrong, the ensuing chaos (OC §613) might not be as comprehensive as if something with a less restricted domain was found to be in error – my never having been in Durham, for example – but the consequences would nonetheless be drastic, and not just for my perception of my tennis-playing ability. I would have to question various other certainties, for example my identification of fellow tennis players and the reliability of my memory, where I got this trophy or that parking permit for (what I presumed to be) my tennis club from.[262] Of course, similar examples could be drawn up for the London taxi driver, the chess player or the pianist, but these need not be explained in detail for every possible practice and ability.

A final thought on restricted domains, although this can only be sketched out and has resisted any of my attempts at a formulation in philosophical terms. People can take things to be certain that others not only do not take as certain, but consider it bizarre that others do. For example, fanatical devotion to a sports team, such that no counter-evidence is ever considered and various other surrounding actions are determined entirely by this conviction. Unprovoked violence towards supporters of other teams is common, for no reason other than that they are supporters of opposing teams. Such devotion, to an outsider, may seem particularly bizarre, for surely there is no such

[261] Of course, we make mistakes or forget our postal address when we have recently moved somewhere. These are simply mistakes. But to forget or make a mistake about my postal address when I have lived in the same place for a few years would be an aberration.
[262] Cf. OC §613.

thing as ‘the best team in the world’ on anything like objective grounds. Nonetheless, peculiar convictions like these, often inherited as part of one’s upbringing in a particular area of a city or family with ties to the club, do set the terms for enquiring and assertion regarding their sport, are immune from doubt, and are largely incomprehensible to those who do not share this aspect of their world-picture. We can see parallel examples in the political sphere, although more in the developing world than in the West, with violent clashes between supporters even of democratic parties.

A person can develop a violent, irrational dislike for a whole nation’s people on account of a single unpleasant encounter with one person of that nationality. This can structure all sorts of their actions, such as not visiting that country, refusing to buy goods from that country, speaking ill of it as a nation in general. If asked to give justifications for this discrimination, they are unlikely to be rational, but for all that no less deeply held. In fact, any sort of discrimination – for example, racism, sex-, gender-, or gender-identity discrimination, ageism, religious intolerance, ableism, homophobia – can take a pattern like this, and are often the product of a certain type of upbringing, never justified rationally because these certainties are never acquired rationally. Whilst it is unpalatable to consider these as certainties in the same way as certainties we might all share, such as gravity, or that many of us share, perhaps about chess playing, they do structure the lives and standards of enquiring and asserting for actual people. The network of possibilities for certainties, at this level, is too intricate, complex, and changeable to formalise in any serious philosophical sense. However we can take note of them and consider their effects and role in a general sense. We will not address this point directly any further, but it can be kept in mind throughout the following discussions.

6.3.5 *Communication and personal-autobiographical certainties*

The more restricted a domain, the more limited will be the problems of communication. The chemist and physicist from Kuhn’s example have a very localised dissonance. In fact, they could probably observe most of one another’s experiments and read one another’s papers and find no discrepancies between their conceptions of the fundamental constituent parts of the universe. The helium particle

(molecule or non-molecule) is an exception. However, with this example, we can see what communication difficulties within restricted domains might look like.

They are less pervasive than broader world-picture clashes, in the sense that they are limited not only to particular activities in one's life (physics and chemistry), but also to particular aspects of those activities (the helium particle). Such communication difficulties do reveal dissonances, but they are easy to spot and very localised. As such, they would not be too difficult to work around for the two individuals. In circumstances outside of these practices, the two individuals might never know that they had minor differences between their world-pictures. If the physicist and chemist met socially but did not know each other's professions, it is unlikely that their different respective certainties regarding the helium particle would ever come up directly, or indirectly cause a problem for their communication.

In the more specific examples related to abilities like playing tennis or driving in London, we are more likely to encounter dissonances in the shape of one person having an absence of certainties that the other person has, rather than an opposing one, as in the case of the chemist and physicist.[263] A Grandmaster of chess can have conversations with fellow Grandmasters that make no sense to a non-player, not because the words make no sense – they probably do as long as the non-player is at least familiar with the very basic terminology – but because the non-player has no idea what it is like to be trying to avoid a *zugzwang* whilst seeking to maintain dominance with only a knight and three pawns.[264] Such things form certainties for advanced players, with so many situations having been repeated in their experience that some moves will simply not be countenanced, without having had to work through all the possible permutations to discover exactly why in each separate instance. Depths of these types of certainties will also play a part. As a novice progresses, she might find less need to consciously work through the empirical

[263] As we have already noted, certainties cannot really be opposed to one another, for they indicate different systems of reference. However, in cases like these we are looking at only a small portion of one's world-picture, not the entire system of reference, it is perhaps excusable to cast certainties as opposing, even if strictly speaking, by Wittgenstein's lights, we ought not to.

[264] A *zugzwang* is a situation in chess in which skipping a move – whilst impermissible by the rules of the game – would be strategically superior to any of the available choices.

process of considering all the possible permutations, and simply recognise where danger lies and where openings are presenting themselves. Around this axis, the rest of her play revolves.

Whereas I need to consult a map to find out where Pall Mall and Islington are and then tortuously work out the route, probably inefficiently and with several mistakes requiring u-turns, someone who has the Knowledge not only drives around London with the certainty of various locations but probably also with the quickest routes. The sight-reading pianist does not need to check the keys of the piano to ensure there is no key between E and F. The tennis player plots shots and service tactics without having to investigate whether striking the ball at a slight angle will create topsin to drag the serve down and into court within the baseline, or that an extra degree's angle of the racquet will create a heavy top-spin that kicks off the surface and forces the opponent to return the serve from head height. Repetition has inculcated this certainty, and many like it, into the restricted domain of tennis for the tennis player. In discussing such matters, none of this makes as much sense to the non-taxi driver, the non-pianist, or the non-tennis player as it does to their fellows within the respective restricted domains. For the advanced practitioners of each of these activities, some things will make more sense to fellow advanced practitioners in conversation than they would to novices.

Restricted domains do beget their own certainties for individuals, and these fit roughly into Moyal-Sharrock's personal-autobiographical category. They also create problems for communication with those who do not share this aspect of their world-picture, or whose similar certainties are not so deeply embedded. In these cases, conversion may be too strong a term, and somewhat beside the point. One does not so much convert from swimming to tennis as learn a new sport, from driving in Durham to driving in London as learn the layout of a new city, from backgammon to chess as learn a new game. However, the familiar features of certainties, particularly in relation to Wittgenstein's own comments on mathematics and linguistic practice – repetition until they become embedded, functioning as an axis around which other aspects of practice turn, immune from doubt – are all applicable to the certainties of restricted domains. In §6.4, we will consider a troublesome aspect of Moyal-Sharrock's taxonomy, that of universal certainties.

6.4 Problems with universal certainties

Moyal-Sharrock suggests that there are some certainties that are necessarily universal, which she places in the fourth category of her taxonomy. §6.4 will explore three objections to her claim that such certainties can be said to exist: the very idea of a normal individual; a rejection of her casting 'I have forbears' as a universal certainty; and questioning whether it is possible to occupy the standpoint required to make such a pronouncement.

6.4.1 *The very idea of a normal individual*

Moyal-Sharrock describes ungiveupable certainties as those which 'no circumstances would induce a normal individual to give it up at any time'.[265] Presumably, a normal individual cannot simply be one who holds the ungiveupable certainties, for this argument would be circular: normal individuals are those who hold ungiveupable certainties, and the ungiveupable certainties are those held by all normal individuals. Moyal-Sharrock requires something outside of this circle in order to justify her appeal to a normal individual. The trouble for Moyal-Sharrock's position, of course, is that normalcy is normalcy within a system. She cannot appeal to something beyond world-pictures altogether to ground the idea of a normal individual.[266] Instead, she has to be able to note something universally common to all humans, not just contingently but necessarily, but without reference to ungiveupable certainties. We place on her the requirement of necessity and not just contingency because contingency indicates possible differences in circumstances, and Moyal-Sharrock has already made clear that this feature of the normal individual is immune from circumstances.

Wittgenstein does use the term 'normal' to refer to circumstances, people, and linguistic practice in *On Certainty* (§§27, 250, 260, 339, 420, 428, 441). However, there is no indication that he means anything by this other than what is normal for him, in his community, or those similar to it:

[265] Moyal-Sharrock (2007), p. 101
[266] Cf. OC §§47, 191.

> Even a proposition like this one, that I am now living in England, has these two sides: it is not a mistake – but on the other hand, what do I know of England? Can't my judgment go all to pieces? Would it not be possible that people came to my room and all declared the opposite? – even gave me 'proofs' of it, so that I suddenly stood there like a madman alone among people who were all normal, or a normal person alone among madmen? Might I not then suffer doubts about what at present seems at the furthest remove from doubt? (OC §420)

Here, Wittgenstein considers the concept of the normal person, and seems sensitive to the fact that if everyone else tells him that he is not where he believes himself to be, it might be they who are normal and he who is mad. Importantly, he recognises that there is no clear way to tell, no criterion of correctness. If he is the lone normal person, the term 'normal' seems to lose its meaning. If he is the lone madman, the words of the normal people who have come to tell him the error of his thought will accomplish nothing. To ask who is really right, he or the intruders into his room, would be 'already going round in a circle' (OC §191) Eventually, Wittgenstein decides that 'everything speaks in its favour, nothing against' (OC §4) the claim:

> I am in England. – Everything around me tells me so; wherever and however I let my thoughts turn, they confirm this for me at once. – But might I not be shaken if things such as I don't dream of at present were to happen? (OC §421)

Wittgenstein appears to settle on trusting his world-picture, whereby everything around him confirms his certainties. He might be shaken by incredible happenings – like people coming into his room and telling him he's wrong – but nevertheless, everything around confirms at once his initial convictions. However, in the next remark, Wittgenstein reveals a crucial problem with this position:

> So I am trying to say something that sounds like pragmatism. Here I am being thwarted by a kind of *Weltanschauung*. (OC §422)

The significance of the use of the *Weltanschauung* should not be underestimated.[267] It indicates a deep uneasiness in the approach Wittgenstein has himself just sketched out. Usually in *On Certainty*, Wittgenstein uses *Weltbild*, which is closer to 'world-picture' than *Weltanschauung*, which is usually translated as 'world-view'. *Weltanschauung* appears at three other notable points in Wittgenstein texts, all with pejorative connotations. The first is in the *Tractatus*:

> 6.371 The whole modern conception of the world [*Weltanschauung*] is founded on the illusion that the so-called laws of nature are the explanation of natural phenomena.
>
> 6.372 Thus people today stop at the laws of nature, treating them as something inviolable, just as God and fate were treated in ages past.

In these remarks, Wittgenstein is decrying the modern, scientistic worldview, one that precludes other forms of thought and investigation which he thought were being sidelined to our detriment. *Weltanschauung* indicates something that is proscriptive and inflexible, and applies to the dominance of science in modern life. Similarly, in *Culture and Value*, in reference to his claim that humour was wiped out in Nazi Germany, Wittgenstein states that:

> Humour is not a mood but a way of looking at the world [Weltanschauung]. So if it is correct to say that humour was stamped out in Nazi Germany, that does not mean that people were not in good spirits or anything of that sort, but something much deeper and more important (CV p. 87).

The *Weltanschauung*, then, is something fundamental to how we perceive the world. It indicates a particular view of reality, one that is not taken as one among many equals, but as the one and only right way of looking at the world. This sort of dogmatism and claims of access to a special sort of truth are deeply opposed to Wittgenstein's philosophy, particularly that of the later period. For, in *Philosophical*

[267] I am indebted to David K. Naugle for this discussion. See Naugle (2002), Ch. 6.

Investigations, he worries that the method he wants to recommend has strayed into such territory:

> The concept of a perspicuous representation is of fundamental significance for us. It earmarks the kind of form of account we give, the way we look at things. (Is this a kind of "*Weltanschauung*"?). (PI §122)

Wittgenstein's concern, according to Judith Genova, is that:

> A *Weltanschauung* forgets its status as *a* way of seeing and parades itself as *the* way of seeing. It takes itself too seriously, as the ultimate explanation and foundation of our convictions. In contrast, the concept of *Weltbild* completely avoids the knowledge game.[268]

So, when Wittgenstein in parentheses accuses himself of succumbing to the temptation to propose a *Weltanschauung* – or at least worries that this is what he is doing – he is concerned with failing to observe his own warnings about advancing philosophical theories. The worry is that he has lapsed into making claims that could only be made from an unavailable objective standpoint. As John Edwards notes, this would amount to Wittgenstein's being:

> seduced by a particular *Weltanschauung*, one which assumes that the response to a philosophical puzzlement must be promulgation and defense of a philosophical thesis. And, of course, it is just that assumption that Wittgenstein so vehemently rejects . . .[269]

Returning to the remarks of *On Certainty* §§420-422 with this understanding of how Wittgenstein used the term *Weltanschauung*, they can be seen in a different light. When Wittgenstein states that he is being 'thwarted by a kind of *Weltanschauung*' in his temptation to cite what he knows to be normal – the evidence of all that is around him – we can see that he is sceptical of the value of this move, even though he

[268] Genova (1995), p. 50
[269] Edwards (1985), p. 184

recognises its allure. The allure consists in casting one's own world-picture [*Weltbild*] as a *Weltanschauung*, applicable to all and immune from doubt even in extraordinary circumstances. Of course, in one sense, certainties and world-pictures are immune from doubt; that is what distinguishes certainties from instances of knowledge. Yet, that does not render world-pictures utterly immutable. Pre-Copernicans became Copernicans and atheists convert to Catholicism. As Moyal-Sharrock correctly notes, 'a hinge's being giveupable does not mean that it is falsifiable, or that it is less of a hinge *whilst a hinge*.'[270] However, her conclusion that she takes a hinge "to be ungiveupable where no circumstances would induce a normal individual to give it up at any time: where '[h]ere a doubt would seem to drag everything with it and plunge it into chaos' (OC 613)" is deeply suspicious. Sometimes – and this is the point Moyal-Sharrock ignores or does not accept – everything is plunged into chaos, and what seemed once unshakeable shifts for an individual. A conversion of this kind does not render that individual abnormal. Dictating what constitutes normalcy is precisely the sort of assumption that Wittgenstein rejects.

6.4.2 *The Pirahã and forebears*

Take one example presented by Moyal-Sharrock as a universal – and therefore ungiveupable – certainty: 'I have forbears'. When compared with two of Wittgenstein's own remarks from *On Certainty*, it is very clear that Wittgenstein did not regard such a certainty as ungiveupable:

> Men have believed that they could make the rain; why should not a king be brought up in the belief that the world began with him? And if Moore and this king were to meet and discuss, could Moore really prove his belief to be the right one? I do not say that Moore could not convert the king to his view, but it would be a conversion of a special kind; the king would be brought to look at the world in a different way (OC §92).

[270] Moyal-Sharrock (2007), p. 101.

> I can imagine a man who had grown up in quite special circumstances and been taught that the earth came into being 50 years ago, and therefore believed this. We might instruct him the earth has long… etc. – We should be trying to give him our picture of the world. This would happen through a kind of persuasion. (OC §262)

Perhaps it is more accurate to say that Wittgenstein did not think it necessary that all humans held the certainty 'I have forbears'. However it would be strange for Moyal-Sharrock to respond that the king has not given up the certainty of forbears but rather never had it, and so seek to salvage her case. The claim about this particular ungiveupable certainty was made in tandem with the claim that it is universal.[271] It is interesting to note, though, that whereas we might initially be inclined to consider the negation of a certainty – not that this fully makes sense, as certainties are neither true nor false – we would be better served considering simply its absence. Rather than consider the certainty 'I have no forbears', we ought instead to consider a community in which no such comparable certainty exists. Indeed, such a community, or something very like it, does indeed exist.

Consider the Pirahã (or Hi'aiti'ihi) people, indigenous to the Amazon rainforest. Due to a short lifespan, and a culture that seems to Western visitors as one of the most extreme empiricism, they have no word for great-grandparents, and are entirely uninterested in the concept of anyone they have never met. As Daniel Everett, who originally sought them out in his role as a Christian missionary, but writing later as a professor of linguistics, describes:

> The Pirahã men then asked, "Hey Dan, what does Jesus look like? Is he dark like us or light like you?"
>
> "Well, I have never actually seen him. He lived a long time ago. But I do have his words."
>
> They then made it clear that if I had not actually seen this guy (and not in any metaphorical sense, but literally), they weren't interested in any stories I had to tell about him. Period. [. . . They]

[271] Moyal-Sharrock (2007), p.103.

> believe in things that someone else has told them, so long as that person has personally witnessed what he or she is reporting.[272]

This may not rebut Moyal-Sharrock's proposed universal certainty that 'I have forbears', because they are comfortable with the idea of the missionary having a father. But, for this community, the idea of anything existing any further back in history than an individual's own memory – or the memory of someone you have personally met – doesn't exist. It at least shows a conception of forbears very different from the one familiar to us. And if we wanted to see this for ourselves, we would only have to look at the Pirahã's practices, linguistic and non-linguistic. On the linguistic front, the Pirahã have no words describing things in the past:

> Grammar and other ways of living are restricted to concrete, immediate experience (where an experience is immediate in Pirahã if it has been seen or recounted as seen by a person alive at the time of telling), and immediacy of experience is reflected in immediacy of information encoding—one event per utterance.[273]

There is the barest minimum in their language of even a conception of the past:

> It has no perfect tense. It has perhaps the simplest kinship system ever documented. It has no creation myths—its texts are almost always descriptions of immediate experience or interpretations of experience; it has some stories about the past, but only of one or two generations back. Pirahã in general express no individual or collective memory of more than two generations past.[274]

Not only is there no available tense in the Pirahã language for describing things in the past, but there is no conception of it in their lives at all. It is not just grammar that is restricted to concrete, immediate experience, but also other ways of living. Clearly, it forms part of the backdrop against which the Pirahã practices of enquiring and

[272] Everett (2009a), pp. 265-6.
[273] Everett (2005), p. 622.
[274] Everett (2005), p. 622.

asserting are played out. If Everett is correct, and the Pirahã have no concept of forebears further back than their grandparents, then 'I have forebears' cannot be an ungiveupable certainty in the way that Moyal-Sharrock describes. Further, the Pirahã have been living on the Maici river in the Amazon for at least several hundred years – contact was first made in 1714 – and do not seem to be in danger of extinction from anything other than external forces; their form of life is clearly not in and of itself unsustainable, and seems to be largely unchanged since the early eighteenth century.[275] Here we have an example of a community that has never had such a certainty about forebears. The Pirahã might be unusual, perhaps even unique. Nonetheless the exception they present cannot be ignored. As we saw earlier, due to concerns over proposing a *Weltanschauung*, Moyal-Sharrock's appeal to normalcy is not compatible with Wittgenstein's thought. Anyone could be converted to the Pirahã world-picture and give up any previously held certainty about forebears, and the Pirahã themselves have done without it for centuries.

It is worth noting that there has been significant academic debate regarding Everett's claims, although most vociferously from Chomsky, whose theories on linguistics are imperilled by Everett's account of the Pirahã.[276] Even were all of Everett's claims to turn out false, though, can Moyal-Sharrock seriously maintain that such a culture has never existed, does not currently exist, will never exist, and in fact could never exist? In the *Remarks on Frazer's Golden Bough* Wittgenstein states that we could imagine for ourselves the practices of other cultures, 'and it would only be by chance if they were not actually to be found somewhere.'[277] True, Wittgenstein was considering forms of life at this stage in his career; the world-picture was not yet a feature of his writing. Yet, the imagination of a network of practices structured in part – to our eyes – by a lack of a certainty regarding the existence of forbears is not beyond our comprehension. We still cannot disprove Moyal-Sharrock's claim that there could never be humans without such a certainty, but it seems increasingly doubtful.

[275] Everett (2009a), pp. 28-9 and 79-80.
[276] For an interesting, if somewhat dense to the non-specialist linguist, debate on the accuracy of Everett's claims, see a paper by Nevins, Pesetsky, and Rodrigues listed as Nevins (2009) and for Everett's response see Everett (2009b). The debate is principally over Chomsky's thesis that recursion is the essential hallmark of all human language. To wit, see Chomsky (2002).
[277] RFGB, p. 5.

6.4.3 *Past and future possibilities*

As long as we are comfortable imagining other forms of life in which radically different certainties from our own could take hold, the concept of ungiveupable certainties seems less and less plausible. Considering chronological differences in world-pictures as well in conjunction with geographical distances as with the Pirahã in §6.4.2 furthers our aims here. Moyal-Sharrock's taxonomy belies a lack of sensitivity to the way that certainties change. She considers 'No one was ever on the moon' to be a local hinge, and engages in a good analysis as to how once-empirical propositions become 'hardened' into the river bed (OC §96).[278] Of particular merit is her investigation into the hinge 'A human being must be the offspring of two human beings', noting that scientific advances have dredged this from the riverbed such that it is now an empirical proposition, not a norm of testing, because efforts are being made to create a child from one parent. Thus, a different hinge, along the lines of 'A human being can be the offspring of a single human being', is gradually being created, but so far the 'repetition, drill, familiarity, banality, needed for it to become a hinge . . . have not yet occurred.'[279]

This analysis, whilst excellent, raises further problems that Moyal-Sharrock does not seem to address. For as long as humans have existed until well in to the twentieth century, 'A human being must be the offspring of two human beings' was a universal norm of investigation. There is the possible objection that the mythology of many cultures, particularly religious ones, permits fertilisation by gods. The Greek god Zeus fathered dozens of semi-divine children with mortal women.[280] Christianity features God's union with Mary to create Jesus. The Egyptians had similar myths regarding their kings. However these children were, themselves, not quite human beings in the normal sense, according to their own mythology. They were cast as semi-mortal or semi-divine, or perhaps something more complex, as in the case of Jesus. The most usual method for producing human children has always been sexual intercourse

[278] Moyal-Sharrock (2007), p. 136.
[279] Moyal-Sharrock (2007), p. 141-2.
[280] Grant (2006), pp. 345-349.

between two humans, not waiting for the nocturnal appearance of a deity. The hinge can remain as originally stated by Moyal-Sharrock.

So, for millennia, 'A human being must be the offspring of two human beings' was perhaps a universal norm of investigation. Yet, Moyal-Sharrock, with the benefit of hindsight and the promises of modern technological innovation, classes this as a local hinge. Had she and Wittgenstein been writing a thousand, or even just a hundred years ago, the possibility of this hinge mutating would have been unthinkable. It would doubtless have been classed as a universal hinge. On the one hand, this is perfectly reasonable. Wittgenstein's riverbed metaphor indicates an openness to change in the face of empirical considerations that drag hardened certainties back into the flow of hypotheses. However, it ought to cast doubt on Moyal-Sharrock's casting of any certainties as ungiveupable and universal in her specialised, necessary sense. For if something that would, not so long ago, have been classed as a universal hinge is now a local one, what faith can we have in her list of current universal hinges?

In answering this question Moyal-Sharrock points again to the riverbed metaphor, and emphasises what she takes to be a crucial phrase:

> And the bank of that river consists partly of hard rock, *subject to no alteration* or only to an imperceptible one, partly of sand . . . (OC §99)

This, she claims, is final proof that 'just because some hinges are revisable does not make the whole bedrock revisable.'[281] However, this is the only passage that Moyal-Sharrock deploys to justify her argument. The rest of *On Certainty* does not support this line of thinking. To see this, we need to draw a distinction between Wittgenstein saying a) that it is impossible for him to doubt something without his whole world-picture collapsing, and b) claiming that it is impossible that anyone could ever doubt something. For instance, Wittgenstein notes that one could doubt even something as fundamental as the propositions of mathematics on a theoretical basis, but that this would not justify an actual doubt:

[281] Moyal-Sharrock (2007), p. 148.

> Now can I prophesy that men will never throw away the present arithmetical propositions, never say that now at last they know how the matter stands? Yet would that justify a doubt on our part? (OC §652)

Mathematical examples, as we noted in Chapters 1 and 2, are frequently treated as examples of things that couldn't be more certain or more fixed. Whilst the possibility of future mutability would not justify a doubt on our part now, Wittgenstein does admit its possibility, however unthinkable it is to him. A few remarks later, Wittgenstein notes that 'I have a right to say "I can't be making a mistake about this" even if I am in error' (OC §663). Here we see the distinction between a) and b) at play. On the one hand, Wittgenstein has settled on a certainty; let us call it the certainty, supposedly universal, that 'I have forbears'. If he were to be in error, what would have to pertain? It cannot be that some particular truth has been found that transcends all world-pictures. It would have to be that another world-picture has supplanted his own. We say world-picture here, rather than just one certainty, because a supposedly universal certainty could not be doubted and revised without plunging everything into chaos, the whole world-picture all at once.

On the other hand, even if this were ever to happen, or simply that Wittgenstein acknowledges the possibility that it could one day happen, that would not cast genuine doubt on this particular certainty. It would be an idle, philosophical, speculative doubt whereby nothing has happened to actually challenge his certainty. Yet, the point in the paragraph above, that if he were one day to be in error it would be according to another system rather than a discovered transcendental truth, is important. Moyal-Sharrock effectively claims that she has acquired some transcendental understanding. To claim that some certainties are forever unrevisable requires not just a view of all current and past world-pictures, but also all future and possible world-pictures too. For even if it is contingently the case that none of these so-called universal certainties are never doubted even far into the future, it does not follow that they could never have been doubted.

Finally, Moyal-Sharrock may have misinterpreted OC §99. Consider again the words she puts in italics in her rendering of the remark. The way she characterises it, there

are two states of being for the hard rock of the riverbed. Some of it is 'subject to no alteration'; some of it is subject 'only to an imperceptible' alteration. However, we could read that mysterious 'or' in a different way. It could just as easily be a correction of the preceding clause, a revised phrasing, in the same way I might say 'This train is not moving . . . or at least it's hardly moving.' In fact, in the original German the presence of a comma not included in the English translation backs up this reading of 'only an imperceptible one' as a qualifying clause:

> *Ja das Ufer jenes Flusses besteht zum Teil aus hartem Gestein,*
> And the bank of that river consists partly of hard rock,
>
> *das keiner,*
> [subject] to none
>
> *oder einer unmerkbaren Änderung unterliegt*
> or only to an imperceptible alteration

The verb – *unterliegt* – comes at the end in German, so we have transplanted it in square brackets to the beginning of the second line in order to make sense in English. The crucial point, though, is the comma after *das keiner*, which indicates that what follows is a qualification of the preceding clause. The English translation by Anscombe and von Wright omits the comma, changing the momentum of the sentence so that the 'or' seems to indicate an alternative rather than an amendment to the phrase.

This in itself is probably not enough to decisively rebut Moyal-Sharrock's claims regarding universal certainties. Nor, taken individually, are the points made above: the difficulties of invoking a 'normal individual'; the benefit of hindsight with which she classes 'A human being must be the offspring of two human beings' as a local hinge; the case of the Pirahã, who seem to live without some of the proposed universal certainties; the concerns that she is attempting a statement that requires a transcendental perspective. However, the conglomeration of these concerns gives sufficient cause to doubt her proposal of universal and ungiveupable hinges, at least via the arguments Moyal-Sharrock has suggested. If this account is flawed, then the

idea that all humans at all times and all locations will share a core of a few unshakeable certainties must be relinquished.

6.5 A dissenting voice

Towards the end of Annalisa Coliva's *Moore and Wittgenstein*, she makes some radical claims. Whilst I agree with much of her analysis except for her propositional account of certainties, the claims Coliva makes regarding the possibility and actuality of alternative world-pictures present an account very different from the one we have argued for, and therefore merit a detailed response.[282] Rather than re-state arguments that have already been presented in this thesis, we will reject Coliva's claims individually and on their own merits, although mention will be made in the footnotes of relevant areas of this thesis for each argument. Coliva makes two key claims: that there are no alternative world-pictures, and that alternative world-pictures are inconceivable. We'll examine each in turn.

6.5.1 *There are no alternative world-pictures*

Coliva presents three arguments – which we will call A), B), and C) – for the rejection of alternative world-pictures. She denies the idea that world-picture conversion is a non-rational process:

> A) Despite appearances to the contrary, Wittgenstein held that it is more evidence than persuasion that can induce us to abandon some of our hinges in favour of different ones . . . not by showing them false, as such, but by forcing us to turn them into empirical propositions.[283]

She argues that the primitive practices do not present a different account of nature, but only a faulty version of our own:

[282] For Coliva on the propositionality of certainties, see Coliva (2010), pp. 111-118. For my rejection of the propositionality of certainties, q.v. §2.5.
[283] Coliva (2010), p. 203. Some other claims are made on the same page, but they are not relevant to our purposes. The lettering A-E is my own.

> B) Different tribes and people, on [Wittgenstein's] view, present more different religious and symbolic elements than a fundamentally different account of nature.[284]

These first two arguments lead her to her final claim that there are no alternative world-pictures:

> C) Yet, explanations of natural phenomena may evolve over time, but this simply marks the development of one shared world-picture.[285]

All three claims turn on her suggestion that:

> there is just one system of justification – Science – which evolves and develops over time, where certain propositions and theories may be outdated by others, because new information comes in and actually proves certain beliefs or theories false, or calls for a new kind of explanation.[286]

As we will see, this reading is only possible because she has she synonymised terms like 'evidence' and 'explanation' with 'scientific evidence' and 'scientific explanation'.[287] Coliva supports A) with reference to an example we have already considered in §4.5: that of Ptolemy's geocentric astronomical model compared to the modern, Copernican, heliocentric model. Coliva's claim is that it:

> seems plausible to think that both Ptolemy and Wittgenstein would have been rationally persuaded to change their views had they had all the evidence available to us: pictures taken from satellites, in the

[284] *Ibid*.
[285] *Ibid*.
[286] Coliva (2010), p. 190. We will use her capitalised version of 'Science' henceforth to indicate that we are speaking of Coliva's conception of it as a unified enterprise and the only system of justification.
[287] I am grateful to Dr. Ian Kidd for conversations in which he suggested the formulation of this point.

former case, and images of Armstrong and associates landing on the Moon in 1969 in the latter case.[288]

Coliva takes it that Ptolemy's conception of evidence would in no way differ from what we take to count as evidence. Wittgenstein, though, claims that 'all testing, all confirmation and disconfirmation of a hypothesis takes place already within a system' (OC §105). For A) to make sense, we, Ptolemy, Wittgenstein, modern scientists, essentially everyone must always have worked within the same system – i.e. world-picture – within which all our standards of evidence, enquiring, and asserting are identical. What differs between all these people is not the system, but 'the quantity and quality of the evidence available to them.'[289]

It seems unlikely that Ptolemy would count as evidence the same things that we do.[290] Had one shown a photograph taken from a satellite to Ptolemy, we would first expect him to ask 'What's a photograph?' The idea of a machine that could record images, let alone on something that wasn't papyrus, would be utterly foreign to him. He would probably dismiss it as a skilled drawing. Even then, would he really believe someone who approached him and told him they had sent a machine capable of space flight – if he could grasp the concepts of electricity, rocket launchers and so on – with such a photographic device on board? Coliva's claim that he would readily be persuaded by evidence – as if evidence is an agent-neutral, universally accepted standard – is hard to maintain.

Coliva apparently considers all systems of justification and evidence to be faulty versions of the one true system of justification – Science – towards which all our other theories 'tend to *converge*'.[291] Consequently, when considering the practices of primitives tribes like those described in Frazer's *Golden Bough*, she seems to agree with Frazer, not with Wittgenstein, that "looking at the way animals' interiors deteriorate . . . once deprived of all its symbolic and religious elements, would just be

[288] Coliva (2010), pp. 190-1.
[289] Coliva (2010), p. 190.
[290] Q.v. §2.6, §4.6.2 and §5.2.1.
[291] Coliva (2010), p. 190. Evidently, this is thoroughly opposed to the reading of Kuhn presented in Chapter 4. In particular q.v. §4.3.1.

a piece of, as it were, 'primitive' Science."[292] This is exactly the position of Frazer's that Wittgenstein is at pains to criticise.[293] Frazer deems magic 'a mistaken association of ideas.'[294] He claims that its error lies in a 'total misconception of the nature of the particular laws which govern that sequence.'[295] Wittgenstein's response was that 'the characteristic feature of primitive man, I believe, is that he does not act from *opinions* he holds about things (as Frazer thinks).'[296] That is to say that practices like divination from looking at the way animals' interiors deteriorate weren't the product of bad theories, but rather played a different role in the lives of past cultures.

Coliva attempts to justify her interpretation of Wittgenstein. She notes that subtracting the symbolic elements from past religious practices may be illegitimate, but maintains nonetheless that this does not mean "we can't judge their *epistemic practices, taken as such*, and deem them erroneous, or, at any rate, 'primitive', if compared to ours, should they so be."[297] Yet her fundamental mistake remains in that she persists in characterising practices like divination as misguided epistemic practices, a series of faulty understandings of causal relations. What she fails to appreciate, by Wittgenstein's lights, is that there is no reason to think that such practices as divination were considered to be part of the same reliable sequence of cause and effect as the way the primitive 'really does build his hut of wood and cuts his arrow with skill and not in effigy.'[298]

To further justify her position, Coliva seeks to separate 'opinions and theories, on the one hand, and the symbolic and religious elements of a ritual, on the other.'[299] She claims that Wittgenstein proposed a "continuity between the opinions and theories of the 'primitives' and ours, for, presumably they evolve as possible answers to the same kind of questions", whereas 'the *symbolic* and *ritual* elements differ and might actually disappear for us.'[300] Wittgenstein's point is quite the opposite. He notes that

[292] Coliva (2010), p. 192.
[293] Q.v. §5.2.3.
[294] Frazer (1922), p. 37-8.
[295] Frazer (1922), p. 49.
[296] RFGB, p. 12.
[297] Coliva (2010), p. 193.
[298] RFGB, p. 4.
[299] Coliva (2010), p. 194-5.
[300] Coliva (2010), p. 195.

symbolic and ritual practices persist in the sense that we can see connections between primitives' behaviour and ours, for instance when we kiss 'the photo of a loved one.'[301] In contrast, he does not pass any judgement on whether the opinions and theories of primitives are comparable to ours. He is concerned with the ritualistic and magical features of such people, and with casting doubt on Frazer's interpretation of them. Coliva's claim that different tribes and peoples do not present a fundamentally different account of nature can only be held if one accepts her stance that the practices of any past culture are simply bad versions of our own Science, and that proper (i.e., our own type of) evidence would rationally persuade them to alter their practices. This is not an accurate interpretation of the *Remarks on Frazer's Golden Bough*.

In support of C), Coliva asserts that OC §§108 and 286 'support precisely this view' that there is just one system of justification and that is Science. In OC §108, Wittgenstein questions whether there is then:

> '. . . no objective truth? Isn't it true, or false, that someone has been on the moon?' If we are thinking within our system then it is certain that no one has ever been on the moon . . . our whole system of physics forbids us to believe it. [In response to someone who said]: We don't know *how* one gets to the moon, but those who get there know at once that they are there; and even you can't explain everything.' We should feel ourselves intellectually very distant from someone who said this (OC §108).

Coliva equates Wittgenstein's idea that we would feel intellectually very distant from such a person with her very different claim that evidence alone would change such a person's mind. She also ignores Wittgenstein's stress that travel to the Moon is impossible 'if we are thinking within our system'; and there is nothing there to indicate that Wittgenstein thinks his to be the only system of justification, and that it is a scientific one. For again, in OC §286, Wittgenstein claims that 'If we compare our system of knowledge with theirs, then theirs is evidently the poorer by far'. Yet, this shows nothing beyond our propensity to denigrate alternative epistemic systems.

[301] RFGB, p. 4.

The ability to scorn an alternative world-picture does not entail that one's own is either correct or indeed the only genuine world-picture. Wittgenstein's point in both examples is only that alternative world-pictures will likely seem strange, misguided, or even unintelligible to us, not that ours is either innately superior or the only one.

Coliva's account is burdened with maintaining that the vast multiplicity of what would seem to be alternative epistemic systems amount to just one epistemic system. Thus, past scientific paradigms, *contra* Kuhn, are really just one continually developing scientific paradigm, whether it be Ptolemaic astronomy or Copernican astronomy, Corpuscularianism or atomic theory, phlogiston or oxygen theories, Newtonian or Einsteinian dynamics. Religion, whether past or present, is just flawed Science. On Coliva's conception, all the religious believers in the world would be converted to her one true Scientific world-picture, if only they had the correct evidence. Presumably all believers are currently ignorant of all such evidence, or they would have been rationally persuaded by now. Coliva's claims are a part of her larger project to reject an interpretation by which Wittgenstein was a relativist. Regardless of this goal, her means to do this, a total rejection of pluralism in relation to world-pictures, is unpersuasive. She has not shown that there is just one system of justification and that is Science, that past practices like divination were forms of bad Science, or that there is just one shared world-picture.

6.5.2 *Alternative world-pictures are inconceivable*

For the claim that alternative world-pictures are inconceivable, Coliva presents two supporting arguments. First, that:

> D) Wittgenstein was in fact . . . an anti-realist, who wanted us to realize the metaphysical ungroundedness of our conceptual and epistemic systems, as well as their ineluctability for us.[302]

From D), Coliva derives:

[302] Coliva (2010), p. 203.

> E) Hence, they would always screen off the intelligibility of conceiving of radically different [conceptual and epistemic systems], thus making relativism simply incomprehensible from our own standpoint. All it [sic., presumably 'that'] remains is thus the idea that it is metaphysically possible that there be creatures with radically different conceptual and epistemic systems, though we can't really understand the ways in which they would deviate from ours.[303]

Essentially, Coliva's claim is that for an alternative epistemic system to be a genuine alternative epistemic system, it must be intelligible to us, i.e. commensurable with our own. If it is not intelligible to us, there are only two options. Either is it not a genuinely alternative epistemic system, or it is a faulty version of our own privileged one – Science – and by showing them evidence of the proper quality and quantity they will improve their epistemic system to match ours. In the latter case, any discrepancies in language can be shown to be error, and corrected in order to match ours too. As we will see, not only are these claims not justified, but Coliva's interpretation is far removed from scholarly consensus, particular with regard to the *Remarks on Frazer's Golden Bough*.[304]

Part of claim D) is uncontentious, that Wittgenstein wanted us to realize the metaphysical ungroundedness of our conceptual and epistemic systems. However Coliva's claim that Wittgenstein was an anti-realist – or at least that it is possible to clearly classify him as one – is contestable. There is a vast amount of literature on this debate, and doing it justice with a full investigation is impossible here.[305] However, there are reasons to doubt Coliva's justifications for making this claim. There are indeed strains of anti-realism in Wittgenstein's thought, perhaps most notably in his rejection of the idea that 'the beginning of a [mathematical] series is a visible section of rails invisibly laid to infinity' (PI §218).[306] This would be anti-realism specifically

[303] Coliva (2010), p. 203.
[304] See, for example, Cioffi (1998), Clack (1999, 2003), Phillips (2003).
[305] For Wittgenstein as realist, see, for example, Mounce (2007). For Wittgenstein as anti-realist, see Brenner (2007), Diamond (1996).
[306] Fogelin makes an interesting case for describing this as antireferentialism, rather than anti-realism. See Fogelin (1996), p. 48.

about numbers as abstract objects, although the implication in the surrounding passages is that linguistic rules and therefore linguistic meaning are also determined by communal agreement, not by anything mind-independent.[307] His point is perhaps best summed up by the phrase: 'The word "accord" and the word "rule" are related to one another; they are cousins. If I teach anyone the use of the one word, he learns the use of the other with it' (PI §224). However, Wittgenstein's position is subtler than straightforward anti-realism; he would likely be horrified at being told that he was espousing a thesis anyway. Even in PI §218, Wittgenstein's position was not quite one of anti-realism, but rather he aimed to show that when we continue a mathematical series, it is not the case that our moves are correct on the grounds that the steps pre-exist human minds, existing mind-independently and metaphysically.[308] He wanted to demonstrate the nonsensicality of such a position as held by realist philosophers. Wittgenstein's position precedes and undermines the realist/anti-realist debate, seeking to cast doubt on the sense of the debate itself.[309]

The example of PI §218 is restricted to numbers, but in *Zettel* he makes a similar point with regards to realism versus idealism (the latter itself an anti-realist position) about the external world:

> One man is a convinced realist, another a convinced idealist and teaches his children accordingly. In such an important matter as the existence or non-existence of the external world they don't want to teach their children anything wrong.

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[307] Cf. 'My symbolical expression was really a mythological description of the use of a rule (PI §221).'

[308] Q.v. §1.5.3.

[309] The extent to which Wittgenstein seeks to undermine various debates surrounding dichotomies like realism and anti-realism is part of a larger discussion as to how therapeutic his philosophy tends to be. The label stems from remarks like PI §§129, 133, and in particular PI §255: 'The philosopher's treatment of a question is like the treatment of an illness' and PI §309: 'What is your aim in philosophy? To show the fly the way out of the fly-bottle'. There is a wealth of very good literature on the debate. See, for example, Stroll (1994) and Grayling (2008), who do not consider *On Certainty* to be therapeutic, and Richter (2004) and Stern (2004) who take him to be primarily interested in a therapeutic method (Stern more so with regard to *Philosophical Investigations* than *On Certainty*). For an alternative account, Hutto (2006) seeks a way to avoid ascribing either theories or a therapeutic aim to Wittgenstein.

> What will the children be taught? To include in what they say: "There are physical objects?" or the opposite? . . . (Z §414)
>
> §415 But the idealist will teach his children the word "chair" after all, for of course he wants to teach them to do this and that, e.g. to fetch a chair. Then where will be the difference between what the idealist-educated children say and the realist ones? Won't the difference only be one of battle cry? (Z §415)

Many expressions of Wittgenstein's could be made to fit the ends of either the realist or the anti-realist. However a more nuanced reading places his position as undermining the debate, because Wittgenstein is inclined to deem it a nonsensical one, one only of battle-cry. As *Zettel* §§414-5 demonstrates, it is impossible to adjudicate between world-pictures because this position requires a metaphysical vantage. As Hutto comments, 'Unless we imagine ourselves in the position of a philosophical God, there is no sense in our sponsoring either metaphysical realism or idealism.'[310] Wittgenstein sought to convey this point by setting out examples and permitting perspicuous representation to do the work. He never states bluntly that he is trying to undercut the debate, but nor does he make unequivocal remarks that he is either a realist or an anti-realist. Coliva does not provide any serious justification to persuade us that anti-realism was Wittgenstein's preferred position.

Claim E) in its original formulation is hard to understand. It is originally phrased as follows:

> Hence, they would always screen off the intelligibility of conceiving of radically different [conceptual and epistemic systems], thus making relativism simply incomprehensible from our own standpoint. All it [sic., presumably 'that'] remains is thus the idea that it is metaphysically possible that there be creatures with radically different

[310] Hutto (2006), p. 190. See also the whole of Chapter 5 - 'Before Realism and Idealism' of the same book for an excellent and detailed defence of the position I have tried to sketch briefly here.

> conceptual and epistemic systems, though we can't really understand the ways in which they would deviate from ours.

'They', in the first line is not clearly defined. Given that E) follows D), it would seem to indicate 'conceptual and epistemic systems'. Thus, the first line now reads, 'Conceptual and epistemic systems would always screen off the intelligibility of conceiving of radically different conceptual and epistemic systems, thus making relativism simply incomprehensible from our own standpoint.' The initial claim that radically different conceptual and epistemic systems (hereafter just 'conceptual systems') would be necessarily unintelligible needs challenging. So, too, does the further claim that this understanding leaves only the metaphysical possibility of radically alternative conceptual systems, and that it is not a contingent possibility.

The problem with the initial claim is that Coliva continues by asserting that if we fail to translate the practices and words of another community using family resemblance in a way that we can understand, then we must:

> regard their use either as a mistaken application of the same concepts we use, or as a use of a different concept, which would call for a more careful translation of their words; or else, as the use of a different concept, which, however, we can't quite grasp in such a way that we would end up not finding them intelligible, or to find them partially intelligible but on the background of a largely similar conceptual scheme.[311]

So Coliva presents two options: either this other community uses our concepts but in a mistaken way that we could correct by showing them the proper evidence; or, if we can't understand them, we simply have to work harder at acquiring a proper translation, in which case they have a largely similar conceptual scheme. The alternative community either shares our conceptual scheme and there are problems in our translation, or they share our conceptual scheme but some of their linguistic use and other practices are in error. Coliva's method places an unfair burden on an

[311] Coliva (2010), p. 201.

alternative conceptual scheme that renders the possibility of one impossible. To be an alternative conceptual scheme it has to be intelligible to us; but if it is intelligible, it is not an alternative conceptual scheme. Coliva has – to be fair, unintentionally – presented the philosophical equivalent of a *zugzwang*.

This point is best demonstrated by her analysis of the example from *Remarks on the Foundations of Mathematics* in which a community 'sell timber by cubic measure'.[312] The example progresses, and it now transpires that they calculate the cost of the timber by the surface area that it covers: "I should, for instance, take a pile which was small by their ideas and, by laying the logs around, change it into a 'big' one."[313] Nonetheless, the sellers respond that now it is a more valuable pile of wood. They seem resistant to what Coliva might call rational persuasion.

Coliva suggests that "what they really mean when they say 'There is more wood here' is simply 'There is a *bigger area* of wood here."[314] This is the sort of interference in language that Wittgenstein so vehemently opposed. A person can make a mistake or learn a word wrongly in relation to a given community, but to assert that a whole community is in error with its linguistic use is thoroughly un-Wittgensteinian. In other words, for Coliva, no explanation could ever justify a community measuring wood in a way different from her own. Either we understand them perfectly but they are wrong and with some rational persuasion they will come to think as we do, or their practices and the words they use to describe them are unintelligible now but simply must be like ours if only our translation would permit us to see so. The hubristic position adopted by Coliva is a direct result of her claim – addressed in §6.5.1 – that there is only one system of justification, and that is Science.

It is not a reasonable requirement that a purported alternative world-picture be intelligible to us. In fact, difficulties in communication would be one of the likely signs that we are dealing with an alternative world-picture.[315] It might well be that this is not an alternative epistemic system. It could be just one peculiar ritual amongst a

[312] Coliva (2010), p. 196 and RFM, I-148, p. 94.
[313] RFM, I-149, p. 94.
[314] Coliva (2010), p. 200.
[315] Q.v. §5.3, §5.4, §5.5.

tribe who share many other aspects of our form of life. But it could also be a secretive sect, whose members believe that a god of theirs decreed that this is the way they will engage in transactions for wood.[316] Perhaps according to their mythology, he was a diminutive god of the forests, and resented the sale of timber reaching higher than the top of his head. Whatever the reasons, it is at least conceivable that there is a certainty here which, when compared to ours regarding timber selling, reveals a dissonance.[317] And if that were the case, we could not legitimately respond to our puzzlement when we do not understand them by claiming that they are making a mistake. So Coliva might be unintentionally correct, this might be an innocuous difference in their culture, not an alternative conceptual system. But she might, in some instances or at the very least conceivably, be wrong, and there could be very deep reasons to do with their world-picture as to why they are like this. In which case, her second claim that alternative world-pictures are only metaphysically and not contingently possible must be deemed false. This community of wood sellers, with a world-picture different from ours is both conceivable and contingently possible, and we must reject Coliva's claim that alternative world-pictures are inconceivable.

[316] Kusch makes a similar suggestion with reference to LFM p. 204. See Kusch (2013), p. 46. His paper presents some excellent criticisms of Coliva's arguments, alternative to mine, but with a similar thrust.

[317] This might not be a one-to-one relationship between dissonances and certainties. One certainty might reveal several dissonances, or vice versa, or several dissonances and certainties matching up as networks rather than individually.

Conclusions

This chapter began in §6.2 by exploring the possibility that certainties can be situated at different depths in the riverbed, noting proneness to revision and consistency of practice according to a certainty as means by which an outsider might observe these difference of depth, as suggested by D.Z. Phillips in his remark on the varying depths of religious faith.

§6.3 set out the reasons for considering actions other than those of mathematical and linguistic practices to have comparable certainties, structuring the logic of those activities and delineating the kind of language-game relevant to the practice. We then introduced the concept of restricted domains, exploring various examples, beginning with Kuhn's chemist and physicist and on to more esoteric activities like playing chess or driving in London, and finally gesturing towards some even more personal features of one's world-picture. We then sought to situate the activities of restricted domains within Moyal-Sharrock's taxonomy, in the category of personal-autobiographical certainties, before considering ways in which differences in world-pictures between individuals at the level of restricted domains affects communication.

§6.4 raised some problems with a separate aspect of Moyal-Sharrock's taxonomy, that of universal certainties. We suggested that whilst it might be contingently the case that all humans share a broad base of certainties, Moyal-Sharrock's justifications for considering this a necessary feature of human life were unpersuasive.

§6.5 closed the chapter by addressing the claims of Annalisa Coliva, whose interpretation of *On Certainty* – that alternative world-pictures both do not exist and are inconceivable – is deeply opposed to ours. We rejected the initial claim that there are no alternative world-pictures, pointing out her highly unusual reading of the *Remarks on Frazer's Golden Bough* and her equating all standards of evidence and explanation with those of Science. Finally, we rejected her inclination to reject alternative world-pictures as inconceivable because of the unreasonable burden she placed on a putative alternative world-picture that it be intelligible to us.

Chapter 7 will draw conclusions for the issues of communication and conversion in *On Certainty* in light of the reading of the world-picture proposed in the preceding chapters. With the world-picture now refined such that it looks as though individuals' world-pictures can vary hugely beyond the broad base of shared certainties depending on religious convictions, occupations (e.g. the physicist and the chemist), and abilities (e.g. playing chess or tennis), we need a refined understanding of what it is for language to be a communal activity.

Chapter 7 – Reappraising the communal view of language

7.1 The communal view of language

This final chapter will consider whether the communal view of language (henceforth the 'static-communal account') as presented in §1.5.6 possesses the subtlety required to accommodate the sorts of linguistic differences in communities presented by world-picture variables. In arguing that it does not, we propose a modified account called the dynamic-communal account. In common with the way incommensurability was analysed in Chapter 5, the background against which language use takes place should be seen as dynamic and flexible, in constant flux depending on whom one is speaking to and in what circumstances. In terms of Kripke's rendering of the problem, his claim that 'beings who agreed in consistently giving bizarre quus-like responses would share in another form of life' will seem unpersuasive and a little crude in light of our investigation.[318] Such beings might share another form of life from our own, but they might also have a different world-picture, or engage in a specific restricted-domain practice governing their use of addition, or a complex combination of these. Our reading of *On Certainty* subtly alters the concept of a linguistic community from how it was presented in *Philosophical Investigations*.

[318] Kripke (1982), p. 96

The core reason for shifting from the static- to the dynamic-communal account is that our investigation into what constitutes a linguistic community has fractured the homogeneity of what was originally considered to be a single form of life. Wittgenstein, at the time of *Philosophical Investigations*, as well as Kripke and most subsequent commentators, were correct in claiming that the community must agree in their understanding of the rules that govern a practice: 'The 'word "agreement" and the word "rule" are *related* to one another, they are cousins' (PI §224). In *Philosophical Investigations*, this sort of agreement is 'part of . . . a life-form [*Lebensform*]' (PI §23), and even to 'imagine a language means to imagine a life-form' (PI §19). *On Certainty* introduced world-picture considerations, which, if one accepts the claims made throughout this thesis, suggest that individuals can hold different world-pictures whilst sharing a single form of life.

This interpretation of *On Certainty* renders the static-communal account lacking in subtlety. Not all linguistic variations can be attributed to a different form of life, even – and perhaps especially – in the cases of fundamental differences over terms like 'addition', 'God', or 'right'. Kripke's quusers could share every aspect of their form of life with Kripke, but have a world-picture variation when it comes to their mathematical practice. Kripke is too keen to dismiss their practice as bizarre, much as Coliva was overly hasty in dismissing the wood-sellers of RFM, I-148.[319] If we really did encounter such a community of quusers, we would do better to consider them as holding dissonant mathematical certainties which, whilst unfamiliar to us, clearly work for them and their variations on mathematical practice and language.

Casting Kripke's quusers as possibly holding a world-picture variation is an important step. Having proposed a series of certainty variables that, in turn, affect the composition of a world-picture, we now need to consider how this might affect an individual's world-picture, their particular collection of certainties. §7.2 addresses these issues, noting the variety of world-pictures, and suggesting that we can consider an individual as holding a unique world-picture. Some preliminary concerns with ascertaining the world-picture of other people will be raised in §7.2.3, awaiting a fuller treatment with language-games specifically in mind in §7.4.1. Towards the end

[319] Q.v. §6.5.2.

of §7.2, we will also propose that we can aggregate aspects of various individual world-pictures to form loose collections and label them as singular things like the 'Christian world-picture', or the 'chess-playing world-picture', provided we do so with the awareness that we are linking individuals' certainties through family resemblance relationships, not by having one thing common to all.

§7.3 reintroduces linguistic concerns, examining language-games against the background not of the homogenous form-of-life community of the static-communal account, but rather against the multifarious backdrop of millions of individuals each with subtly different world-pictures. We will consider what it is to see a connection – between one's own world-picture and that of another individual – with which one can build a dialogue, and also what it is to make a mistake in seeing such a connection and its consequences for communication.

§7.4 introduces a final piece of terminology: the dialect. In encountering people with certainties different from our own, we learn how to communicate with those with different world-pictures. Improving our communication results in our becoming partially fluent in unfamiliar dialects which we do no speak natively. We might learn the dialect of a religion whose beliefs we do not share, the polemic of a political position we find anathema to our own, or just the practices of a restricted domain we do not actively participate in. We do this by engaging in dialogue, learning of certainties which we do not hold, and in doing so we improve our dialogue. §7.4 will close by indicating ways in which the introduction of terms and concepts like restricted domains, dissonances, and dialects might re-frame the private-language debate for future scholarship.

7.2 The individual world-picture

7.2.1 *The variety of world-pictures*

We have considered several variables of world-pictures and explored the consequences for communication and conversion when particular aspects of world-pictures – religious, political, professional, abilities, and considerations of the depth of certainties – are incommensurable between individuals. Consequently, we no longer view world-pictures as homogenised across a community. The static-communal account depended on homogeneity across a form of life, and this no longer fits our conception of human practice. Given the distinctions drawn in Chapter 5, there can not even be such a thing as a single religious world-picture or a single scientific world-picture. Religious certainties vary from religion to religion, again within denominations and subdivisions of religions, and again in individuals with regard to depth, as explored in §6.2. Scientific world-pictures vary not just across epochs via paradigm shifts, but also within disciplines and sub-disciplines – as for Kuhn's physicist and chemist – and again in terms of how broad their scope is; whilst, as Wittgenstein says, Lavoisier has 'got hold of a definite world-picture' that forms the 'matter-of-course foundation for his research' (OC §167), once he leaves the laboratory for the day the certainties of his chemical research can lie dormant, and others become more important. If he goes to meet a friend for a game of chess, the certainties of the chess restricted domain structure his moves and thoughts on the game. If he attends a church service – Lavoisier retained the religious belief of his upbringing throughout his life – he is probably not justifying his faith in the way he would an empirical hypothesis when back in the laboratory. This is the concept we have called restricted domains.[320]

Dissonances between world-pictures present problems for communication, although the fewer the dissonances the easier it is to construct a practical dialogue between two individuals. It appears now that differences between people's world-pictures, though often quite small, are nonetheless more widespread than originally thought. In the

[320] Q.v. §6.3.

broader sense of the world-picture, for example differentiating Moore and the king or a Christian and an atheist, we have considered the consequences for communication and conversion. However, not only does Moore's world-picture differ radically from the king's, it probably also differs subtly from those of his fellow travellers. Despite belonging to the same English form of life as his companions – we could even presume that they are fellow philosophy dons at Cambridge – some might be Christians, some atheists; some Nazi sympathisers, some liberal pacifists; some chess players, some backgammon players. The variety of certainties is enormous, and connections cannot be made solely on the basis of a shared form of life. We turn now to examining how an individual's world-picture is comprised of a variety of certainties.

7.2.2 *The composition of an individual world-picture*

Individuals are not just Christians or atheists, piano players or tennis players. Each person holds an indefinitely complex array of certainties. A Christian can also be a tennis player and a physicist and a driver in London. An atheist can also be a New York taxi driver with a penchant for chess and neo-Nazi ethico-political convictions. The Christian might be an adept mathematician and the atheist innumerate. A Jewish person with particular religious certainties could also be a flat-Earther and Moon-landing denier. A Blue Dog Democrat – a Southern Democrat in the USA bearing more in common with a Southern Republican than a Northern Democrat – might bear an irrational conviction that his favoured American football team is the best in the world, and supporters of the team in the neighbouring state are universally worthy of unprovoked assault.[321]

The variables mentioned above are only a small selection of those possible, the ones already used as examples in this thesis. No exhaustive list of possibilities could be supplied; we can only gesture towards their variety. It is conceivable that, contingently, there are one or more certainties held simultaneously by all living humans, but Moyal Sharrock's claim that there are – necessarily – universal

[321] Q.v. §5.4.1.

certainties was found to be unpersuasive.[322] Therefore it is possible that the following claim is correct: no two world-pictures are identical. Even if by chance it is not accurate and two individuals' world-pictures happen to be identical, we could make the weaker claim that most individuals' world-pictures are non-identical with each other. The differences might be slight and rarely – if ever – come to light; dissonances are only revealed in certain situations.[323] With those we know well, the idiosyncratic convictions and abilities of others are familiar to us, particularly if they are uncharacteristic for the social group. The greater the scale of the dissonance in comparison with the group the quicker it is likely to be discovered and the more obvious it will be.

In the company of established friends, whom we have known for years, we are usually aware of the practices they engage in, their religious beliefs, and their political convictions. Since usually we share most certainties with those around us, we speak easily and freely, accommodating others regarding the small dissonances that we are aware of by tailoring our language use as appropriate. One could not expect to be fully understood if one's conversation were full of references to an activity that those listening do not engage in. I could talk to Roger Federer about some general features of tennis, but if he were to speak to me about tactics for playing a major Open final on a clay surface, or about ways to out-psyche an opponent before stepping on to the court in front of thousands of fans, I would not – and he ought not expect me to – fully understand, even if, via a dialogue, I could achieve some partial understanding. His certainties about his practices structure his language use, and there are some certainties within the restricted domain of ultra-elite tennis professionals that cannot be acquired without becoming such an athlete oneself. The same could be said for any sport, other activities like chess or piano playing, and even for professions as for the physicist and chemist. Similarly, if I know that I speaking to a Christian, even about something other than Christianity, I might, in some situations, deploy terms like 'God' or 'faith' in a way I might not with atheists or Buddhists. Conversely, I could purposefully use religious – and in particular Christian – metaphors and terminology in order to convey a point in a manner persuasive to that person.

[322] Q.v. §6.4.
[323] Q.v. §5.5.

With someone we do not know well, the details of their world-picture are less familiar to us. We might be able to guess at certain broad features, given the upbringing we presume they have had and the inherited mythology imparted to them.[324] I tend to presume that most of the new people I meet near where I live share my certainties about gravity, about being in England, about being living human beings, and so on. If present, large-scale dissonances might be revealed almost immediately. For example, the person one is speaking to might not hold the certainty that they are a living human being if they are exhibiting symptoms of Cotard syndrome, sufferers of which believe they are dead.[325] The dissonance between his world-picture and one's own regarding being a living human being would probably be revealed rather quickly, although if they are not talking it might be hard to pin down exactly what their certainty is beyond that it is radically different from one's own.

7.2.3 *Ascertaining the world-picture of others*

The example of Cotard syndrome might be an extreme one, but it raises the question of how we ought to consider those well outside the norm. Moyal-Sharrock, it would seem, would want to dismiss such cases. Ungiveupable certainties are those, by her lights, which 'no circumstances would induce a normal individual to give it up at any time'.[326] Being a living human being comes under her definition of a universal certainty.[327] However, for reasons we explored in §6.4, there are serious concerns with her reliance on the term 'normal' to describe a human. We might wish to dismiss the Cotard syndrome sufferer as abnormal, someone who doesn't have a different world-picture from us, but is merely deluded. Two things should give us pause before we do so. First, that although everything tells us that this person is alive – the patient breathes and has a pulse – it is not a state out of which a patient can be reasoned by

[324] Cf. OC §§94 and 95.
[325] See Helldén (2007). Sufferers report their body feeling 'unfamiliar', 'shut off from the surrounding world', and in extreme cases become 'convinced [they are] dead'. It might be debatable whether this is a certainty, depending on whether the individual acts thoroughly as though they are dead, or whether their interacting with some features of the world contradicts this apparent conviction, although some patients do exhibit full-body paralysis akin to rigor mortis.
[326] Moyal-Sharrock (2007), p. 101.
[327] Moyal-Sharrock (2007), p. 101.

appeal to evidence. Everything in the patient's experience conforms to his perception that he is dead, even if that requires some very strange interpretations of his experiences. Within the world-picture of the patient, asking whether the system itself is true or false is meaningless (OC §162). It structures their enquiries and actions in the world, even if, in the case of Cotard syndrome, that manifests in total inaction and lack of enquiring.

Secondly, it might be relatively easy to dismiss a case as rare, extreme, and an aberration – by the standards of our world-picture – in terms of the claims made by the sufferer as Cotard syndrome. But what of other – for instance medical – concerns that place one outside the norm in a less extreme way? Consider those with: bipolar, postpartum, or psychotic depression; an autistic-spectrum disorder; drug, alcohol, sex, or food addiction; dyslexia; obsessive-compulsive disorder; narcissistic-personality disorder; schizophrenia; anorexia or bulimia; post-traumatic-stress disorder; any sort of phobia, be it social, object-specific, abstract, or any other; any sort of philia, be it a paraphilia of some kind, or Wittgenstein's own possible philalethia.[328, 329]

Some of these examples are the feature of current debate as to whether they are genuinely classifiable medical concerns, forms of addiction in particular. Whether or not any of these are classifiable as medical disorders or not is irrelevant to our interests. We are interested in how these people engage with the world, regardless of classification and diagnosis. If Cotard syndrome could present a genuinely different world-picture from our own, then so too could less strikingly bizarre and somewhat more common differences in a person's mental and physical state, even if such world-pictures might differ from our own less radically than that of a Cotard-syndrome sufferer. And whilst it might be easy to write off Cotard syndrome as a pathology, discarding as cases worthy of consideration all those who fall into the categories listed

[328] "'Call me a truth-seeker', [Wittgenstein] once wrote to his sister" Monk (1990), p. 3.

[329] I am not an expert on mental health and use these classifications only as the sorts of examples fellow non-experts might have a vague understanding of. Investigating each of these classifications, the extent to which diagnoses, causes, and best treatments are debated, whether sufferers report symptoms akin to *gestalt* switches and changes of world-picture ever or at certain stages in the disorder, whilst fascinating, are considerations beyond the remit of this thesis, but a promising avenue for future research.

above would be barbaric. Hardly anyone would be left as a normal human being, and particularly so when one expands these concerns to those who might not warrant a diagnosis but exhibit limited symptoms of a classifiable illness such that it forms part of their personality. Once again, fiction (or sometimes autobiography) might be a better method than philosophical formulations to gain some understanding of how such features of people's lives have them experiencing a particular type of world-picture.[330] Regardless, dismissing their state of mind as a faulty version of our own world-picture seems an inadmissible manoeuvre.

The certainties that form a part of one individual's world-picture might be not just absent from those of another but also incomprehensible to another person. In encountering someone with Cotard syndrome it would be easy to notice a difference in world-picture. But meeting for the first time someone with an addiction who has avoided a relapse for many years, or with a mild autistic-spectrum disorder, or post-traumatic-stress disorder (particularly in a calm, stable, familiar environment), such differences in world-picture would probably not be obvious, possibly not for many more meetings. It might require a specific set of circumstances to reveal the dissonances, such as a loud noise for a sufferer of post-traumatic stress, or a situation in which people are taking drugs or alcohol for the addict. Therefore, our claims that someone has a similar world-picture to our own must be made with caution, just as we approach conversation with a new person we know nothing about with caution. We can surmise broad swathes of commensurability, and have them confirmed indirectly and almost immediately. The more minute differences, encompassing practices and abilities or features of personality that might border on medical definitions (or venture into them), require interaction and dialogue to ascertain.

[330] For accounts of depression, see Styron (1991), Alvarez (2002), or Kane (2001). For an account of an autistic-spectrum disorder, see Haddon (2004). For accounts of drug addiction, see De Quincey (1975), St Aubyn (2012), or Burroughs (1972). Not all of these are fiction. Styron (1991) and De Quincey (1975) are autobiographical and Alvarez (2002) is a conceptual study with the author's personal experience interwoven. It is telling that with all except Haddon, personal-autobiographical experience forms a crucial part of the works, suggesting perhaps that these are particularly difficult world-pictures and experiences to understand from the outside, as few attempt it successfully in writing.

Wittgenstein, following from Moore, was primarily interested in the things we can readily take for granted as being in common with those around us (recall the Moorean propositions from §2.2). These are, roughly, the certainties Moyal-Sharrock classed as universal, although it might include some personal and linguistic hinges too.[331] Moyal-Sharrock's taxonomy is useful in getting us to consider the diverse nature of certainties, those that not everyone shares, and to consider the variety of which an individual's world-picture is made up: the universal, local, personal, and linguistic. The examples of medical disorders would seem to fit into her category of personal hinges, as relating to a person's 'states', 'biography', and 'perceptions'.[332] However, at the stage we are now at, of taking into account tiny dissonances, minor points of incommensurability, the taxonomy becomes less appropriate; it could not classify every possible certainty even within the category of personal certainties without becoming overburdened by its own complexity.

Whilst we can use the taxonomy as a guide, it is no substitute for seeing connections for oneself. Once connections are made, how one classifies them is a matter for the philosopher, not the ordinary person in everyday scenarios, and such efforts at some point become unhelpful to the ordinary person. However, if we are not to be overwhelmed by the possibilities for other individuals' world-pictures, we need some way of grouping them together. Seeing connections would be exhausting if we had to see them utterly afresh each instant, and it is useful in our lives to be able to label – if only mentally in order to aid our interaction – features of other people's world-pictures.

7.2.4 *Aggregating aspects of individual world-pictures*

Refinement of our understanding of the concept of the world-picture has led us to be aware of how simplified labels like the 'religious world-picture' or the 'scientific world-picture' really are. Such ascriptions do not take into account distinctions within these labels, and also erroneously presume that, for example, believers share an identical world-picture with each other, regardless of other certainties, such as those

[331] Cf. Moyal-Sharrock (2007), p. 101.
[332] Moyal-Sharrock (2007), p. 101.

from restricted domains. Nonetheless, there is still a clear purpose in having such labels. Communication is easiest with those who share more of one's certainties, and it is useful to be able to recognise those who might be in such a position. We are able to see connections between individuals' different religious world-pictures and see something in common we call religion, but we can do so only with the awareness that we have found family resemblance relationships, not the general form of a religious world-picture, with one feature common to all. Further, we must be aware that in seeing connections between different people's religious practice, we have not made connections between their world-pictures as the sum of all their certainties, but only between particular certainties or aspects of their world-pictures. We therefore need to be careful of considering those with whom we share only aspects of our world-picture as sharing more of their world-picture than they actually do.

Seeing connections is a core feature of the dialogue proposed by Wang.[333] In recognising a person as having a religious world-picture, we are making connections between it and other religious world-pictures we have encountered, though there may not be a single feature uniting the whole group. Dialogue with those of alternative world-pictures serves two purposes. First, we speak to communicate simply because we want to communicate. But we also communicate and ask questions and probe ideas because we want to know to what extent we are being understood and how to be understood better. Doing this requires getting to know someone's certainties appropriate to the conversation that is taking place. Two people discussing religious beliefs are not interested in each other's certainties about tennis – if either has them at all – but they are interested in each other's certainties of religious belief. To understand how this process happens, we need to return to language-games. As we do so, we will gain a clearer understanding not just of the backdrop against which the dynamic-communal account of language takes place, but of the strictly linguistic aspects of the dynamic-communal account too.

[333] Cf. Wang (2007), p. 275-277, and q.v. §5.3.3.

7.4 Language-games revisited

The language-game concept was introduced by Wittgenstein to draw attention to the variety of language use.[334] He suggested a variety of practices, including 'forming and testing a hypothesis', 'reporting an event', 'making up a story; and reading it', and 'play-acting', amongst many others, as examples (PI §23). He also declared that 'to imagine a language means to imagine a form of life' (PI §19). Some activities feature across several forms of life but differ from one another in their rules and practice. Take 'forming and testing a hypothesis' (PI §23). It would be hard to think of a culture, past or present, that did not feature some sort of activity along these lines. However, as we have seen, a practice like this and how one goes about it is not dependent solely on the form of life in which it takes place. Certainties impact what it is to formulate and test a hypothesis, what counts as evidence and standards of verification.

The physicist and the chemist, sharing a form of life, consider the formation and testing of a hypothesis to be held to different standards, different background assumptions, when it comes to matters concerning the helium particle as either non-molecule (the physicist) or molecule (the chemist).[335] In turn, their language use differs and they play different-language-games; bluntly, one calls it a molecule and the other does not. The discrepancy is not a simple case of replacing one word with another, as it might be between natural languages. The physicist, in conversation with the chemist, cannot simply start calling helium a molecule and thereby ensure that he and his theories and certainties are communicated and understood by the chemist. Language-games need to be re-examined, this time set against the backdrop of a variety of world-pictures and certainties in combination with forms of life. A crucial effect of the introduction of world-pictures for our language-game considerations is that, whilst one is relatively unlikely to mistake the form of life that someone belongs to, it is much easier to make a mistake in assuming the certainties that someone holds. Kuhn's physicist and chemist could have spent a long time speaking at least partly at cross-purposes unless one or the other knew a little about the other's discipline, or an interrogator asked them a direct question about helium and showed them each other's

[334] Q.v. §1.2.2.
[335] Q.v. §4.4.1, §6.3.2.

answers. We return now to an issue raised briefly in §7.2.3, that of being mistaken in one's assumptions about another's world-picture; this time, we do so with language-games at the forefront of our thoughts.

7.4.1 *Mistaking identities*

In Kuhn's example, the responses given to the question reveal the differences in the two scientists' restricted domains. However, we are not always aware of such discrepancies. We make mistakes. We can misinterpret someone else's world-picture, either using terms they don't recognise, or using the same terms they do in a different way from how they use them. That is not to say that any linguistic discrepancy between two people is indicative of incommensurable certainties; some mistakes are innocuous, linguistic mistakes. We might accidentally mispronounce a word, or, due to regional differences, pronounce it in a way unrecognisable to them, or have nearly identically world-pictures but be playing different language-games. For example, if I and another person with an almost identical world-picture were speaking about bats, I might be using the word to indicate an instrument used to hit the ball in table tennis, and my friend to speak of the winged mammal. We could both be active participants in table tennis and zoology, and know both the rules of both language-games equally well, but still encounter confusion if we don't know which language-game each other is playing.

However, we can also make mistakes about someone else's world-picture. In order to communicate at all, we need to assume some basic commonalities. The core certainties such as those regarding gravity and being a living human are reasonably assumed in almost any situation. Our mistakes are more likely to be about specialised aspects of someone's world-picture. For example, everyone has probably had the experience of engaging in a perfectly pleasant conversation with someone who seems quite like-minded, only to find that the person you're speaking to is an appalling racist – perhaps he tells a joke and reveals himself – full of vitriolic hatred for no reason other than inherited prejudice.[336] By the things they say, it becomes indirectly clear

[336] Q.v. §6.3.4.

that such a person holds certainties totally dissimilar from one's own, especially ethical and political ones. Incredulity at their views may be matched by their incredulity at one's own views. Rational argument is not going to effect a conversion of their certainties because the things non-racists take as evidence, fact, and standards of proof differ from the things racists take as evidence, fact, and standards of proof. We have a dissonance in certainties, and communication will be hindered on some points. Whilst we could – if one were willing to – still engage in conversation about chess or tennis if we both played, discussions of ethics, race, immigration, and certain aspects of history would be impinged by different structures informing our enquiring and asserting. In particular, our language differs; we use terms differently, and it is not a matter of correcting one another. To each, the other's use of some terms is an aberration, not a simple linguistic error.[337]

At first, recall, we did not notice this alarming dissonance in our world-pictures, because, unpalatable as it may seem, in other respects racists are almost exactly like us. They have certainties about gravity and having hands, and they might be good chemists and chess players. Accordingly, much of the racist's language is just like ours. However, it was through a linguistic act – telling an offensive joke – that suggested an underlying dissonance. Whilst, of course, we could have observed a clearer indication such as an act of violent aggression directed at someone of another race, more commonly we will notice such differences via language. This is an intentionally extreme example for the purposes of illustration, but we could easily consider subtler, less noticeable ones, particularly with regard to the certainties of restricted domains or differences of depth in similar certainties.

If we can be mistaken, at least temporarily, about something as divisive and relatively obvious as someone's discriminatory certainties about race, then we can also – probably more frequently – be mistaken about smaller dissonances, and these mistakes can go unnoticed for far longer. Their effects on communication might, proportionally, be less significant; however several small mistakes could amount to a great deal of miscommunication. Even on the static-communal account, the idea that

[337] Cf. Wittgenstein's distinction between the statement 'I believe in the Last Judgement' and 'There is a German aeroplane overhead' (LC, p. 53), and q.v. discussion of this passage in §5.2.1.

we can make meaningful use of language on grounds no firmer than communal agreement – a 'congruence of subjectivities' – induces 'a sort of vertigo' in McDowell.[338] The dynamic-communal account that is emerging here seems as if it should compound the vertigo; not only must we presume a congruence of intersubjectivities, we must do so in more respects and in greater variety than on the static-communal account that depends only on a shared form of life.

7.4.2. *Revising what we mean by 'communal'*

Language, on the dynamic-communal account, remains communal. There is nothing that constitutes linguistic meaning other than there being a custom of use within a community. But whereas *Philosophical Investigations* largely encourages a very broad understanding of what constitutes a community, on the reading of *On Certainty* presented here what we take to be a community is restricted. Instead of seeing language and meaning as played out against the backdrop of very large communities with a variety of language-games taking place therein, we should imagine a complex network of smaller, overlapping communities. Traditionally, communitarians, as Stern calls them, described the form of life as the backdrop of human activity from which communal language acquires meaning.[339] As we have seen, this communal background has been fragmented by taking into account not just world-pictures to form the breadth-depth axis, but also the variations on world-pictures individuals may have. The faith in intersubjective agreement required for the original understanding of the communal view of language looks to be a far bigger leap in the face of this more complex rendering.

When we attempt to communicate with anyone, we naturally assume some things: core certainties that nearly everyone holds. In these assumptions we might occasionally be surprised, perhaps by encountering a flat-Earther or a racist or

[338] McDowell (1981) p. 149, in response to Cavell's description of meaning's dependence on nothing more than a shared form of life as 'terrifying', Cavell (1969) p. 52.
[339] Stern (2004), p. 155

someone with a medical disorder.[340] Usually, though, we are on safe ground when it comes to the more fundamental aspects of communication. However, as our communication becomes more specialised and complex, we cannot so readily assume a common background of understanding. Variations in world-pictures multiply the closer one looks, and we are bound to misidentify aspects of others' world-pictures, whereby we assume that they share certainties they in fact do not. When this happens, it is our language that falters. We assume a congruence of intersubjectivities where there isn't one, or at least not in the areas relevant to our discussion. However it is also our language that provides the means of working around these problems. We engage in dialogue, a back-and-forth movement, and see if we can locate where it is that we differ. If we rule out a simple mistake of playing different language-games, we look for something deeper in our certainties. If we can locate with some degree of precision exactly where our dissonances lie, we simultaneously map out with greater precision where we have an accord, and where our communication might be less hindered. Further, in locating the dissonances, we can try, through more communication, to convert the other. Conversion for either party would expand the domain of congruent intersubjectivities – i.e. commensurable certainties – for the two speakers.

Whilst this process up to but excluding the point of conversion facilitates communication, no one's world-picture has to undergo any sort of change. We can amass information and improve understanding with anyone through this process of dialogue. As we do so, we can become increasingly adept at speaking to people with particular aspects of their world-picture different from ours. This is hardly surprising. Prolonged exposure to any group different from our own improves our ability to understand them and their language-use: the concepts they deploy and the words they use to describe them. Even if some features remain utterly incommensurable, an atheist who spends a lot of time with Christians and develops a feeling for what their certainties might be like – how they influence their lives and their judgements, their enquiring and asserting – will achieve more effective communication with them than an atheist who has never encountered a Christian in discussion.

[340] As suggested in §7.2.2, we ought still to consider these as world-pictures in their own right, however much they fail to accord with our own.

A community of any sort indicates that one can see connections in features shared between its members. In terms of linguistic meaning, we are part of several linguistic communities, memberships of which are determined by with whom and to what extent we share aspects of our world-picture and our form of life. Furthermore, just as our world-pictures and forms of life may change in the course of our lives – we can acquire new skills, move to new countries, convert to or from a religion or a deep political conviction – so too may our linguistic community, those with whom we can communicate. The concept of a linguistic community is flexible and dynamic from the point of view of the individual, even though a community itself might not change significantly with the addition or loss of a single member. We become part of and cease to be parts of several linguistic communities throughout our lives.[341] With any community, there are those on the periphery and those at the centre, and those anywhere in between. Drawing a strict boundary where there is not one in practice is futile, although that in no way prevents us making the associations required to consider communities as collections at least somewhat distinct from one another.[342]

In continually engaging with communities other than our own, we learn to speak a range of dialects. And like the dialects of a natural language, we can be fluent or a novice. Without changing our world-picture we can expose ourselves to those with aspects of their world-picture that are incommensurable with ours, and engage with them about those aspects, locating dissonances, getting a feel for what it might be like to be a Christian or a neo-Nazi or an elite tennis player or a London taxi driver. Some people are particularly skilled at this or particularly driven to acquire such understanding. For example, Isaiah Berlin's biographer described Berlin as having had 'an ability to enter into beliefs, feelings, and attitudes alien and at times acutely anitpathetic to his own.'[343] Whilst this might indicate particular empathic skills – a matter for another sort of discussion altogether – to know what those alien beliefs, feelings, and attitudes were, before even considering entering into them, would have

[341] Q.v. §6.3.1, which considered the riverbed metaphor and how certainties can change in relation to individuals as well as communities *qua* individuals-writ-large.
[342] Cf. '[T]his boundary will never entirely coincide with the actual usage, as the actual usage has no sharp boundary' (BB, p. 19). Cf. BB pp. 27-8, PI §§68-9, 499.
[343] Ignatieff (1998), p. 256. The remark was originally made by Berlin about Turgenev – see Berlin (1978), p. 263 – but Ignatieff, who knew Berlin personally, uses it to describe Berlin himself.

required significant efforts of communication and dialogue in order to acquire an understanding of the alternative position. We learn – although not always as effectively as Berlin – to speak a variety of dialects, and acquire at least partial understandings of alternative world-pictures, without being committed to the world-pictures they express.

7.5 Dialect and dialogue

One last piece of new terminology is needed. Restricted domains and other world-picture variables have been explained, and their consequences for communication explored; there are significant consequences for our linguistic practice depending on the certainties of our world-picture. In a sense, the physicist speaks a slightly different language from the chemist when the physicist is doing physics; there are unique terms, and some terms appearing in both scientists' vocabularies have different uses and therefore different meanings between the two. We will describe this phenomenon as their speaking different dialects. Calling them different languages would be too extreme, but the analogy with dialects of natural languages fits well. There are also further distinctions, which we'll call sub-dialects, for example the language used by those working in branches of physics like electromagnetism or optics, or belonging to denominations within Christianity. If we were particularly keen on classifying and taxonomising, we could list sub-sub-dialects, sub-sub-sub-dialects; as many subs- as one wishes. However the boundaries between each subdivision are unlikely to be clear enough for this to serve any real purpose. As Moyal-Sharrock intimates, the taxonomy is designed to guide and aid, not to posit metaphysical categories of certainties.[344]

7.5.1 *Native and alien dialects*

We can distinguish between native dialects and alien dialects. Our native dialects are those which accord with or express our own world-picture. If I have certainties about gravity, being a living human being, having hands, these – and their effects on our linguistic use – are native dialects that we can use comfortably with those like us. In the case of the preceding examples, that's nearly everyone. Then there are our specialised dialects, often features of our practices of restricted domains, like those of the physicist and the chemist. Their have different native dialects when it comes to science.

[344] Cf. Moyal-Sharrock (2007), pp. 101-2.

Alien dialects are those that depend upon certainties that I don't have. If I'm not a chess player, I don't speak the chess dialect. If I have never studied medicine, I'm not a native medical-dialect speaker. The native/alien distinction represents two extremes. Like any non-native dialect or natural language encountered, one can acquire conversational ability without being fluent. Just as with the dialects of natural languages, there are some idioms the significance of which cannot quite fully be grasped without having lived in that place for a long time, rather like a conversion of a certainty entailing a *gestalt* switch. Between the extremes of native and alien, we can acquire partial fluency in several dialects. I could learn some medical jargon and a bit of anatomy and engage in some very limited dialogue with medical professionals. I would be a non-fluent, but conversational, speaker of that dialect. Usually, this will go with being a central rather than peripheral member of a community. It would be extremely difficult to become a fluent medical-dialect speaker without spending time with other medical students in labs, classes, and hospitals, around patients, nurses, anaesthetists, porters, and surgeons. Much of the daily language of the community – idioms and in-jokes based on shared experience and customs – would not be found in *Gray's Anatomy* or *DSM-V*.

To acquire a better degree of fluency in an alien dialect, it is not sufficient to learn only the phrases and words by rote. The form-of-life aspects of language – that is to say, linguistic actions that inform noting more than cultural traditions – can be picked up fairly readily. One can spend time in an unfamiliar area and learn some features of the common language-games. For instance, visiting school sports teams could pick up that we called our lined paper block. On the other hand, to understand an alternative world-picture is usually not so easy as picking up new words. Deep-rooted certainties that inform the practices – of enquiring and asserting and much else besides – for, say, the king of OC §92 require deeper integration and efforts at dialogue than could be picked up by Moore simply altering small portions of his vocabulary.

Acquiring fluency in an alien dialect requires dialogue, Wang's back-and-forth movement, to see connections where some certainties are held in common, to locate where dissonances remain, and to then work around those dissonances to continue improving communication. Conversion is facilitated by knowing as precisely as possible which features of another individual's world-picture they need converting on

if they are to see the world in a way more similar to ours, i.e. to convert to a world-picture closer to our own. Failing this sort of awareness, we are in danger of continuing to speak partly at cross-purposes, not realising that we are using terms differently in a way that belies not just linguistic differences, but core differences in the things we take to be certain in our lives.

7.4.2 *Private language*

Kripke's work on the private-language argument was mentioned briefly in §1.5.3. There is no room for a detailed discussion of the complexities of debate surrounding the topic here, but it is worth noting how this interpretation of *On Certainty* might reframe the discussion. Briefly, the private-language argument stems from a remark in *Philosophical Investigations*:

> To think one is obeying a rule is not to obey a rule. Hence it is not possible to obey a rule 'privately'; otherwise thinking one was obeying a rule would be the same thing as obeying it (PI §202).

Debate has then ensued as to whether a logically private language – i.e. one that is logically rather than contingently restricted to an individual, due to lacking external criteria of correctness for the application of terms – is possible on Wittgenstein's account. Fogelin (1984), McGinn, C (1984), and Blackburn (1984) argue that a logically private language is possible. Richter argues that it is not, primarily because "the words 'private language' do not refer to anything that satisfies the person who wants to use them."[345] Stern, similarly, argues against the possibility of private language, arguing that the concept is nonsensical given the way that linguistic practice is explained in *Philosophical Investigations*.[346]

All of these commentators, though, Kripke included, assume that language is grounded in a form of life. As we have seen, this is only part of the picture. Kripke,

[345] Richter (2004), p. 182.
[346] Stern (2004), pp. 175-185.

on encountering some unusual behaviour surrounding practices of mathematical addition, declared that 'beings who agreed in consistently giving bizarre quus-like responses would share in another form of life'.[347] In attributing this feature of the quusers' practice as a form of life, he misses the significance it probably holds in their lives. Provided they are not playing a prank on Kripke, this is a fundamental mathematical certainty for them, on a par with any of our own, and forms a part of their world picture dissonant from ours. If we were to encounter such people in sufficient number in real life, we would be keen to find out how their system works, engaging in dialogue to do so. Their world-picture would be subtly different – in one particular respect certainly, but perhaps in others too – from ours, and dialogue would help us learn their dialect.

A reassessment of the debate ought to be carried out in light of the reappraisal of the community view of language, taking into account the linguistic considerations that fall out of, first, the introduction of the concept of the world-picture, and, secondly, out of the refinement of the world-picture to include incommensurable certainties, restricted domains, and world-picture dialects. Stern and Richter, for example, deem the private-language argument nonsensical because the very concept of language is defined by communal agreement, something that is by definition unavailable to a logically private language. The reliability of examining one's own internal sensations as a criterion of linguistic correctness in order to provide a custom is called into question in comparison with the widely accessible communal rules that govern public language. However, the refined world-picture suggests that it is hard to be positive that one is taking part in the identical background assumptions of language as one's interlocutor. As §7.4.1 suggested, we make mistakes with regards to ascribing particular features of world-pictures to other individuals. Whilst these mistakes are unlikely to be regular features of our lives when it comes to the more universal certainties, about the more esoteric and idiosyncratic ones we are more prone to error, and there are genuine consequences for linguistic meaning and (mis)communication.

The dynamic-communal account therefore redefines what it is for language to be communal. Consequently, the way in which we contrast private language with

[347] Kripke (1982), p. 96.

communal language changes as we shift from the static- to the dynamic-communal account. Whilst still communal, language is not communal in the same way as the original communal view of language described in §1.5.6. The vertigo, as McDowell puts it, of hoping that those around you share a common form of life within which linguistic rules and uses are communally held is nothing like the more severe vertigo of hoping that you have successfully pinned down, as far as possible, the certainties of each individual one encounters separately, given the almost infinite variety of composition of a world-picture for each person.[348]

The consequences of such a mistake might not be too dramatic. For example, if I use a chess metaphor in conversation with someone whom I believe to be a keen chess player but in fact isn't, she is likely sufficiently partially fluent – i.e. knows what chess is, what a board and the pieces look like – not to wildly misinterpret my metaphor. Can I always be sure of this, though? And can I be sure, at all, that my metaphor is received in the way I intended it, the way that I would had someone else expressed it to me? Overconfidence will lead to mistakes and impaired communication, often without our realising it. On the other hand, too much doubt, and we are left with an untenable generalised scepticism of the sort that Wittgenstein sought to undermine in *On Certainty*. Ultimately, my life shows that I am certain of being understood. Not directly through philosophical statements to that effect, but indirectly, in talking about chess, religion, tennis or literature. Dialogue is a persistent feature of our lives, and whilst we make mistakes in guessing at someone else's world-picture, they are localised enough that we need not doubt the entire linguistic enterprise.

The most important reason for moving to a dynamic-communal account of language is not to cast doubt on meaning, but rather to refine the way in which we consider meaning to derive from intersubjective agreement; not against the backdrop of a form of life, but instead against that of a complicated network of communities. These communities are related to each other in the way in which we see connections on a family resemblance basis. We can be a central or a peripheral member of any of these communities, or anywhere in between. Closely paralleled – although not necessarily

[348] Q.v. §7.4.1.

strictly so – to our status in these communities, we can be native or alien speakers of dialects, novices or fluent. Without being aware of this, or ever having to state it explicitly, our lives show our certainty that we communicate effectively and are being understood, though we are not immune from error and miscommunication.

Conclusions

This chapter began by re-introducing the static-communal account of language as described in §1.5.6. Having examined the concept of the world-picture and introduced refinements to it, particularly addressing the breadth-depth axis, incommensurability of certainties, and restricted domains, the form-of-life background against which the static-communal account was originally set looked to be too simplistic. Chapter 7 took up the task of reappraising the static-communal account of language, finding it lacking and proposing instead a modified version: the dynamic-communal account of language.

§7.2 reminded us of the variety of world-pictures, considering the network of certainties that makes up the world-picture of an individual, and how it might be non-identical with any other individual's world-picture. We claimed that we can still speak of aggregations of aspects of individuals' world-pictures, seeing connections between, for example, the religious certainties of various individuals in order to speak generally of religious world-pictures. However, we must do so with the awareness that the connections we make are based on family resemblance relationships, and no single feature is common to all. The more general the qualifying term – e.g. religious, ethical, political – the looser these connections will be. On the other hand one would expect more specific features, particularly relating to restricted domains – chess, Jehovah's Witnesses, London taxi drivers – to bear tighter connections to one another in individuals who hold them.

§7.3 reintroduced language-games to this more complex backdrop of human practices and certainties. It is through language, and specifically differences in our language-games, that we are likely to come across dissonances and variations in world-pictures. Not all linguistic discrepancies between individuals belie dissonances (i.e. incommensurable certainties), but, if we want to ensure we are communicating effectively, understanding and being understood, we ought to be aware of the possibility of such dissonances. If we encounter them, language and dialogue are how we can work around our differences, and perhaps even effect a conversion once we know precisely where the dissonances lie. In re-introducing language-games, we can see just what the shift from the static- to the dynamic-communal account amounts to.

The concept of communal language has been redefined, away from a homogenised, form-of-life-based community, to an intricate network of overlapping smaller communities, of which we can be central or peripheral members. The boundaries of these communities are rarely distinct, and our position between the centre and periphery is flexible.

§7.4 proposed that we call our different use of language as members of different communities dialects. Within dialects there is still a multiplicity of language-games. However, because these communities are distinguished partly along the lines of certainties held (the other part being form-of-life considerations), similar activities in different communities can be structured by very different sorts of certainties, resulting in different practices – and in particular different linguistic practices – that run too deep to be considered just different language-games. We distinguished between native and alien dialects, and likened our getting to know the certainties of a community other than our own as gaining fluency in an alien dialect. In gaining fluency, we improve our communication by getting to know where dissonances lie as well as how to work around them with a fluent speaker of an alternative dialect. A process of dialogue facilitates communication and aids pinpointing what needs converting in another if they are to acquire a world-picture more like our own, as well as providing the linguistic tools for conveying non-rational means of effecting such a conversion. Finally, we briefly considered how the movement from the static- to the dynamic-communal account of language might impact further debate on the private-language argument. Ultimately, our lives show our certainty that we are communicating and being understood effectively, even if, when encountering certainties dissonant with our own, localised doubt as to whether we are being understood is perfectly justifiable and may in fact prompt a dialogue that improves communication further.

Thesis conclusions

General conclusions

This thesis has sought to reassess the conception of language set out in *Philosophical Investigations* within the context of Wittgenstein's final work, *On Certainty*. The ideas of *On Certainty* regarding certainty and its distinction from knowledge, the world-picture, and persuasion and conversion are interesting and merit attention in themselves, but gain a new significance when the concerns of language-games and rule-following are considered in relation to them. This thesis has argued that one of the ways in which our reading of linguistic meaning in *Philosophical Investigations* might need to be amended is in light of the revised framework within which human action – linguistic and non-linguistic – takes place. The dynamic-communal account of language is a product of integrating the investigation into *On Certainty* with the discussion of *Philosophical Investigations*.

Chapter-by-chapter recapitulation

Chapter 1 set out the basis of *Philosophical Investigations*, explaining the concepts of language-games and rule-following. Seeing connections is an essential skill for gaining a clear view of language and how use determines meaning, returning later in the thesis when comparing certainties with people who hold different world-pictures from one's own. At the end of Chapter 1, Kripke's arguments regarding private language and the quus problem helped to explain the communal view of language, setting up the core concern of this thesis: how we must revise our concept of what it is for language to be communal and what constitutes a linguistic community.

Chapter 2 began by addressing the background of *On Certainty*, Moore's two papers, and discussed Wittgenstein's response to them. The concept of certainty was distinguished from knowledge primarily along the lines of being immune from doubt and structuring all other forms of enquiring and asserting. The collection of someone's certainties forms a world-picture. Recognising certainties as non-

propositional has lasting ramifications for how one considers *On Certainty*. It is important that we take certainties to be at such a depth in our lives that we are largely unconscious of them and, therefore, do not tend to verbalise them. Whilst certainties may have propositional counterparts, particularly in a heuristic capacity when teaching children or in quite particular circumstances where something like 'I know that I have a hand' is an appropriate topic for empirical investigation, when they are part of the scaffolding of our thoughts they have no propositional role. This reading firmly establishes the depth of certainties, and provides a means of contrasting certainties and the world-picture they comprise with the breadth considerations of the form of life.

Chapter 3 further explored the depth of certainties. Although certainty received some attention in *Philosophical Investigations*, the emphasis was largely on the breadth of practices across a community, rather than how deeply they inhere in individuals' lives and the extent to which they structure other actions. *On Certainty* focused on the latter enquiry, spanning interests far beyond the starting point of noting problems with Moore's rejection of scepticism. Chapter 3 charted the development of the concept of certainty from *Philosophical Investigations* to *On Certainty*, contrasting it with the form of life, before tying them together in a breadth-depth axis on which to plot human practices.

Chapter 4 investigated how the world-picture, which structures all our actions, is comparable with the way in which Kuhn's paradigms set the boundaries for scientists' practices. The parallels between Wittgenstein and Kuhn extend beyond rule-following and anti-essentialism, and into their methodologies. Both present examples, real and fictional, as a means to acquiring a perspicuous representation. In both Kuhn and Wittgenstein there is the idea of something immune from doubt and belonging to logic that structures our enquiring and asserting in the form of the paradigm and the world-picture. Both recognise the importance of non-rational persuasion and religious-like conversion in cases where clashes involve either the paradigm or world-picture. Consequently, Kuhn's analysis of incommensurability becomes a useful tool in evaluating what happens in cases of world-picture clash.

However, just what incommensurability amounts to was a matter of some debate. Chapter 5 proposed a dynamic interpretation of incommensurability, the advantages of which were clear: communication is rendered neither impossible nor unrealistically simple. Instead, individuals must see connections for themselves, noting as best they can where similarities lie in order to construct a dialogue and work around the dissonances that remain incommensurable. Incommensurability ought to be seen as dynamic and context-dependent. The greater the similarity of two clashing world-pictures, the greater the incommensurability. Incommensurability between world-pictures will manifest in both linguistic and non-linguistic actions. Incommensurability can be worked around, via a back-and-forth movement, establishing points of similarity via dialogue. Improved communication will help to locate irreducible points of incommensurability, which we have called dissonances.

Chapter 6 considered incommensurability along finer divisions that those initially suggested in *On Certainty*. This process required noting where smaller dissonances might lie between individuals' world-pictures. The concept of restricted domains suggested specific practices, each with idiosyncratic certainties underlying and structuring them, which some people hold and others do not. Religious and ethical convictions are the most obvious, but the certainties of restricted domains present other ways in which individuals' world-pictures might subtly differ from one another's, and present more complex ways of grouping the world-pictures of various people under one category. Whilst practices such as playing the piano or chess were initially fitted into Moyal-Sharrock's taxonomy under the category of personal-autobiographical hinges, the later stages of Chapter 6 suggested some problematic features of constructing a taxonomy, and warned that it can best be used as a helpful guide rather than a strict system into which all certainties must find a unique place. Chpter 6 closed by addressing a radically different conception of world-pictures by Annalisa Coliva, rejecting her claims as being either misinterpretations of Wittgenstein or a consequence of her equating all standards of evidence and explanation with those of science.

Chapter 7 reappraised the communal view of language in light of the preceding chapters of the thesis. The world-picture of an individual can be made up of an almost

infinite variety and particular combination of certainties; no two individuals' world-pictures are necessarily wholly identical, although some of their certainties might be.

Engaging in dialogue allows us to note where there are similarities, where there are dissonances, and finally promote further dialogue by creating more common ground with which to work around the dissonances. Ultimately, the sort of persuasion required to effect a conversion will be easier if one knows which certainties the other holds, and therefore what type of non-rational persuasion might be effective. Rather than suggesting that we share a homogenous background of practice against which the original communal conception of language plays out, we should consider ourselves as being members of a network of various smaller, overlapping communities, speaking a number of dialects, with varying degrees of fluency. We need not share the commitments of a community in order to be able to achieve at least partial fluency – and therefore communication – with its members. This dynamic-communal account of language captures how our ability to communicate with others and share linguistic meaning depends on what it is that is being discussed and which relevant practices both parties engage in – the extent to which a world-picture is shared – rather than grounding language only in a form of life.

Possibilities for further enquiry

Psychiatric conditions

In §7.2.3 we addressed the problem of ascertaining the world-picture of others, and briefly mentioned possible differences in certainties and world-picture along the lines of medical conditions. I only gestured towards some broad medical classifications such as Cotard syndrome, autistic-spectrum disorders, and various addictions and phobias. It would be interesting to investigate to what extent such medical disorders present variations on world-pictures; whether individuals with such conditions hold different certainties that structure their enquiring and asserting compared with so-called healthy or normal people. In particular, given the growing trend for lowering the threshold of mental disorders, the diagnostic distinction between a borderline case and a clear one in relation to world-picture considerations presents a promising route for further enquiry.

Ethical dimensions of world-pictures

This thesis has focused on exploring a communal account of linguistic meaning adapted from *Philosophical Investigations* but integrated with the later work of *On Certainty*. In order to do so, some sketches of world-picture variants have been sketched and the consequences of an ungrounded set of certainties explored. However, aside from drawing comparisons with Kuhn's concept of paradigms, there has been little space for progress in examining the practical ramifications of recognising convictions held immune from doubt. Whilst in general terms the roles of non-rational persuasion and conversion have been explored, one area in particular that could benefit from further detailed enquiry is that of ethics.

Ethical convictions do sometimes derive from recognisably widespread and deeply held religious beliefs. However in an age of increasing secularism and movement away from organised religion, particularly in the developed West, religion is no longer necessarily a person's first source of ethical guidance. Nonetheless, ethical quandaries are no less prevalent than they have ever been, and developments in

science – particularly in medicine – continually present new ethical dilemmas. The ethics of euthanasia in an increasingly ageing (and often infirm) population, of organ donor eligibility and restrictions, and of conceiving children bearing the DNA of three parents via in-vitro fertilisation in order to avoid rare hereditary mitochondrial diseases, are all examples of germane debates in current life. Recent responses to concerns like these often reveal deeply held convictions that do not seem open to rational persuasion.

Nigel Pleasants (2009) has proposed the concept of basic moral certainties derived from Wittgenstein's *On Certainty*, and this is a promising avenue for further enquiry. Whilst I originally intended to focus on developing the idea of basic moral certainties and incorporating them into the refined world-picture as presented in this thesis, it is an aspect of the project that never came to fruition. Nevertheless, the detailed investigation presented here into the refinement of the world-picture, incommensurability between world-pictures, communication within the refined world-picture, and broad sketches of how ethical dissonances might play out, ought to provide a more developed base from which to explore the concept of basic moral certainties than has previously been available. This thesis might be considered to lay the pre-ethical groundwork within which to situate the ethical convictions and practices of humans.

Use of literary examples

I have occasionally referenced works of fiction or non-fiction in footnotes where I believe that the point might be better conveyed by means other than philosophy. Sometimes, no doubt, this indicates a lack of philosophical ability on my part, but I also think that there are deeper reasons occasionally to gesture towards non-academic means of expressing an idea. This is particularly relevant where we want to see connections, for in order to see connections we first need something to see connections between. Wittgenstein was adept at creating fictional language-games, but observing actual language-games unfamiliar to us would often serve just as well. However, alien language-games are not always readily available to us because the forms of life and broad features of world-pictures that surround us are usually quite

familiar. There are of course many ways of exposing oneself to unfamiliar practices. Travel is an obvious option, although not everyone has the opportunity to go and meet people like the Pirahã for oneself. Travel literature or documentaries may provide a simulacrum of real, first-hand experience, but fictional depictions are often more accessible.

Further enquiry could be made with regards to Wittgenstein's showing/saying distinction. Obviously, fictional literature says things, but they are not necessarily propositions intending to depict an actual state of affairs. We can speak of a book saying something true, but true in an indirect way; not because the characters lived or did those things, but because the text as a whole expresses something that resonates with us, something that accurately reflects an aspect of our lives. This idea need not be restricted to literature. Any art form, particularly theatre and film, but potentially also art and music can provide similar depictions of alternative forms of life and world-pictures.

Enquiry could take the form of seeking to formalise the relationship between the ideas expressed in art forms and Wittgenstein's idea of seeing connections and providing fictional examples. However, it is likely not the case that such a philosophical formalisation would improve the efficacy of such depictions, but only provide material for a curious philosopher. If one does not enjoy reading fiction or viewing art, no amount of philosophical persuasion will engender an appreciation for alternative forms of life or world-pictures via these means. Nonetheless, there is scope for further attempts to express philosophical ideas in artistic form. There are already notable examples: Nietzsche's *Thus Spoke Zarathustra*; Sartre's *Nausea*; Camus' *The Outsider* (usually translated as *The Stranger*), amongst many others.[349] So far, with the exception of Markson's *Wittgenstein's Mistress* and *This is Not a Novel*, there has been less success in expressing the ideas of analytic philosophy via fiction than broadly defined continental or phenomenological philosophy.[350] It is also worth noting that, aside from Markson, the fiction mentioned above was written by the philosophers themselves, expressing their own ideas. Other writers have depicted their ideas, but the results are usually not quite as famous. For example, almost all of

[349] Nietzsche (2005), Sartre (2000), Camus (1989).
[350] See Markson (1988) and (2010).

Hermann Hesse's works express themes from either Nietzsche or Eastern philosophy.[351] It is perhaps a clue to Markson's success that Wittgenstein somewhat straddles the analytic/continental divide, but if one wished to seek a formalisation of the relationship between philosophy and literature, it might be fruitful first to examine why analytic philosophy seems to be less easily rendered in fiction and other art forms than continental philosophy.

A further line of enquiry might be simply to seek out pre-existing artistic works of any kind and relate them to philosophical ideas, whether the association with philosophical ideas is intentional or not. Literary criticism does this regularly – albeit largely in relation to the continental-influenced structuralist and post-structuralist movements – but philosophy seems more reluctant to admit non-philosophical material to its considerations. In particular, in relation to this thesis, it would be of interest to trace fictional accounts of what could be regarded as world-picture clash and ensuing communication difficulties. In such a way, we might expand the scope of our 'intermediate cases' providing fresh opportunities for 'seeing connexions' (PI §122).

[351] See, for example, *Siddartha*, (Hesse, 1998) and *The Glass Bead Game*, (Hesse, 2000).

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